

# SERVICE MANUAL

**L75**  
AV RECEIVER

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**NAD ELECTRONICS INTERNATIONAL**  
TORONTO

# SERVICE MANUAL



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A/V RECEIVER

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# SECTION 1

## SUMMARY

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# PRODUCT SAFETY SERVICING GUIDELINES

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM AC LINE SHOCK.

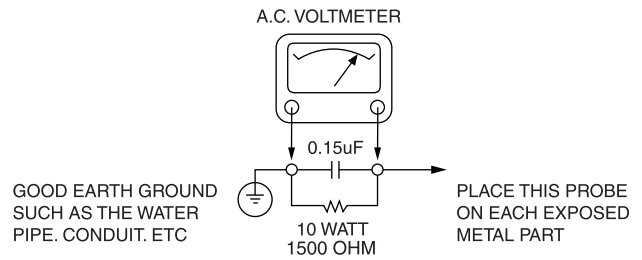
## SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

### SUBJECT : FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS. FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING AC CORD). AND REPLACE IF NECESSARY FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES, DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN AC LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS. HANDLE AND SCREWS) TO BE SURE THE SET IS SAFET TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN AC VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD, 150V AC TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME.  
MEASURE THE AC VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR.  
REVERSE THE AC PLUG AND REPEAT AC VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART.

VOLTAGE MEASURE MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMPS AC ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



## SUBJECT : GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

## SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE. OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

# SERVICING PRECAUTIONS

**CAUTION :** Before servicing the A/V Receiver covered by this service data and its supplements and addends, read and follow the **SAFETY PRECAUTIONS**. **NOTE :** if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publication, always follow the safety precautions.

*Remember Safety First:*

## General Servicing Precautions

1. Always unplug the A/V Receiver AC power cord from the AC power source before:
  - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
  - (2) Disconnecting or reconnecting any internal electrical plug or other electrical connection.
  - (3) Connecting a test substitute in parallel with an electrolytic capacitor.**Caution :** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this A/V Receiver or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cottontipped swab, or comparable soft applicator.  
Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this A/V Receiver and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

## Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.

**Note 1 :** Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

## Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical Es devices are integrated circuits and some field effect transistors and semiconductor chip components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freonpropelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**Caution :** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

# SPECIFICATIONS

## Amplifier Section

Output Power (Front) :

F.T.C Rating:

60 watts RMS per channel minimum, both channels driven into 8 ohms from 20 Hz to 20kHz with no more than 0.09% total harmonic distortion

Surround Output Power (0.5% THD, 1 kHz, 8 ohms) :

40 + 40 Watt (Front)

40 Watt (Center)

40 + 40 Watt (Rear)

Total Harmonic Distortion (Front) :

0.02 % (at 60 watts, 1 kHz)

Delay Time :

DOLBY DIGITAL : REAR : 0 - 15 ms

CENTER : 0 - 5 ms

DOLBY PRO LOGIC : REAR : 15 - 30 ms

Audio Input Sensitivity/Impedance :

\*LINE : 200 mV/47 k ohms

Output Level / Impedance :

TAPE REC : 185 mV/2.2 k ohms

Frequency Response :

\*LINE : 20 Hz - 65 kHz, +1/ -3 dB

Signal-to-Noise Ratio : 1 Watt

\*LINE : 70 dB (IHF-A)

Tone Control :

BASS :  $\pm 10$  dB at 100 Hz

TREBLE :  $\pm 10$  dB at 10 kHz

## Digital Audio Section

Sampling Frequency :

32 kHz, 44.1 kHz, 48 kHz

DIGITAL Input Level/Impedance

COAXIAL : 0.5 Vp-p/75 ohms

OPTICAL : -15 dBm ~ -21 dBm

## Video Section

Input Sensitivity /Impedance : 1.0 Vp-p/75 ohms

Output Level /Impedance : 1.0 Vp-p/75 ohms

\*LINE means TAPE, AUX, VIDEO 1, VIDEO 2, DVD

- Improvements may result in specifications and features changing without notice.
- Illustrations may differ slightly from production models.

## FM Tuner Section

(Without notes 100.1 MHz, 65 dBf)

Tuning Range :

87.5 MHz - 108.0 MHz C: 50 kHz steps

AH: 100 kHz steps

AM Suppression Ratio: C: 45 dB

AH: 60 dB

Total Harmonic Distortion (1 kHz) :

Mono : 0.4%

Stereo : 0.5%

Frequency Responses : 30 Hz - 15 kHz, +1/ -1.5 dB

Stereo Separation (1 kHz) : C: 40 dB

AH: 35 dB

Signal-to-Noise Ratio :

Mono : 75 dB

Stereo : 70 dB

## AM Tuner Section

Tuning Range:

C : 522 kHz - 1,620 kHz (9 kHz steps)

AH : 530 kHz - 1,720 kHz (10 kHz steps)

Usable Sensitivity : 55 dB/m

Total Harmonic Distortion : 0.8% at 85 dB/m

Signal-to-Noise Ratio : 45 dB at 85 dB/m

## General

Power Requirements :

C : 230V AC, 50Hz

AH : 120V AC, 60Hz

Power Consumption : C: 1.2A

AH: 2.3A

AC Outlets : unswitched x 1, Total 100 W max. (1A)

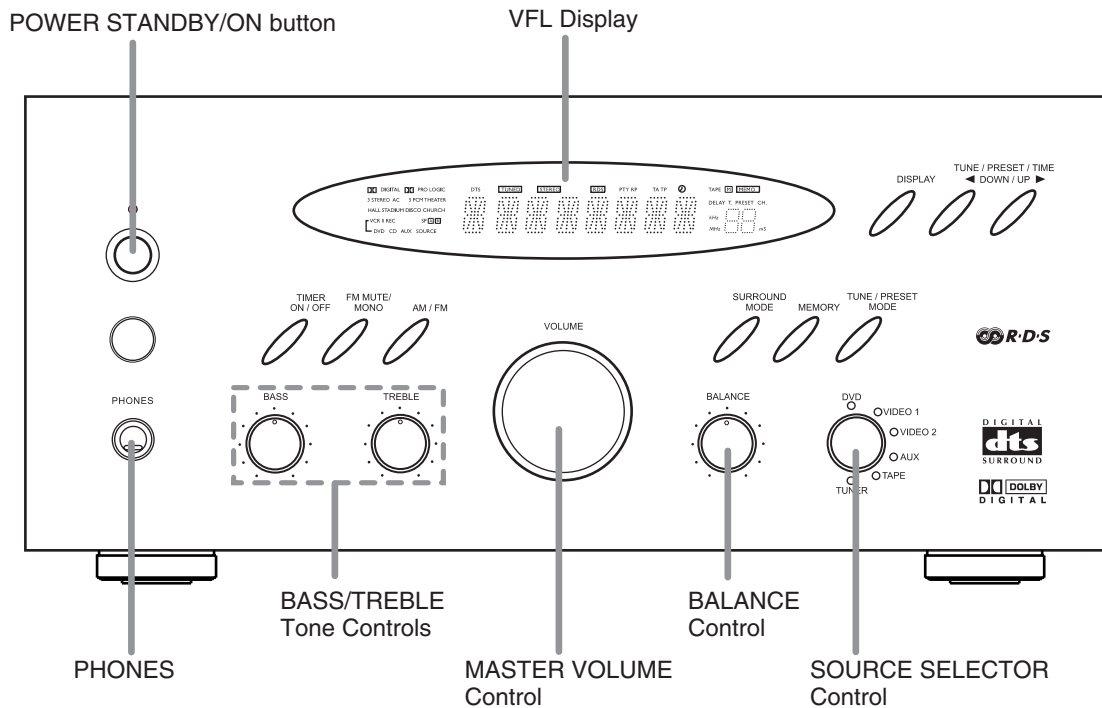
(AH Version only)

Dimensions (W x H x D) : 285 x 133 x 348

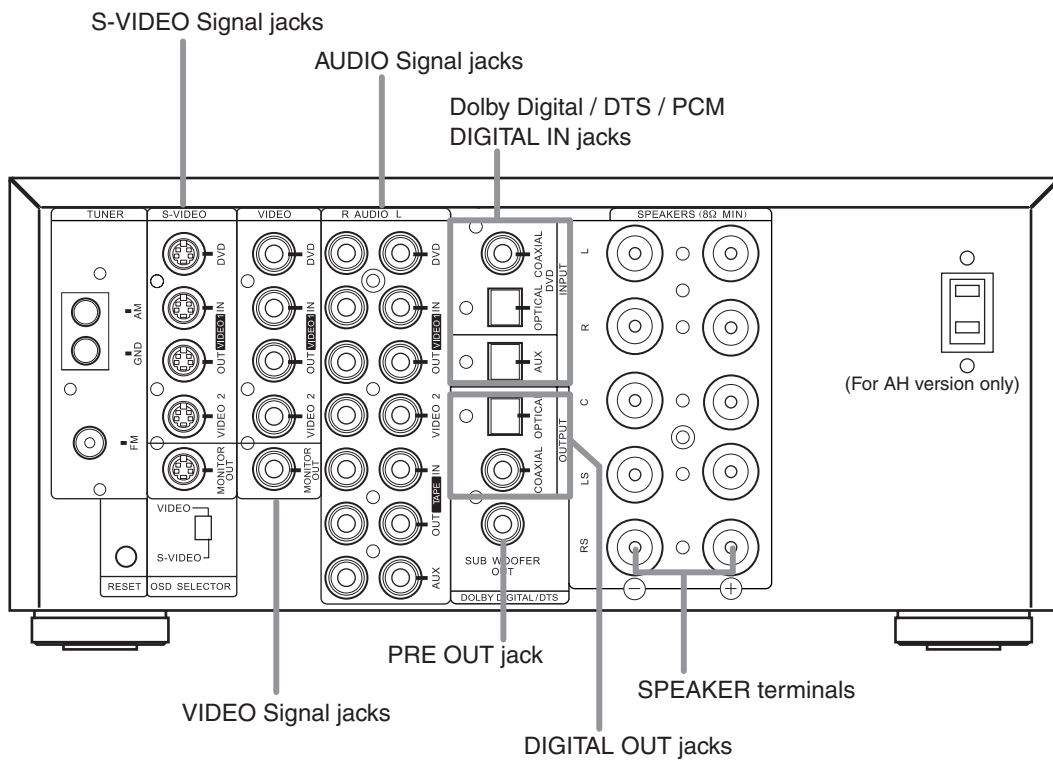
Weight (net) : 8.8kg

# LOCATION OF CUSTOMER CONTROLS

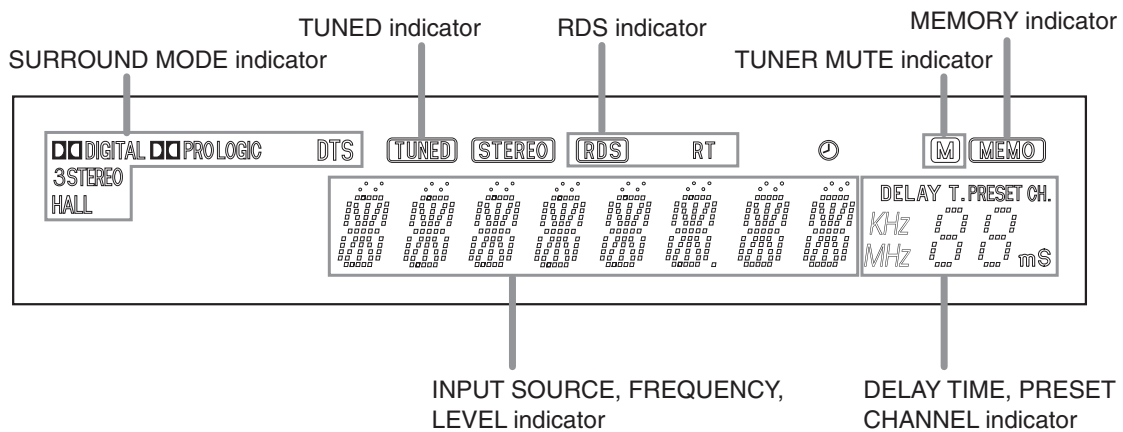
## FRONT PANEL



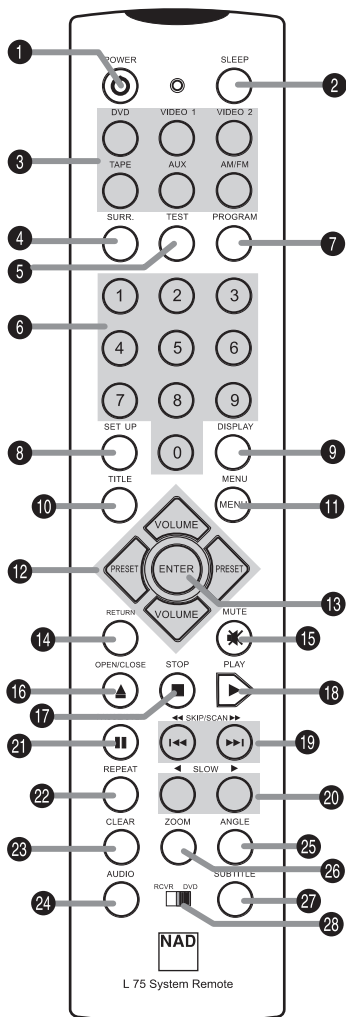
## REAR PANEL



## VFL DISPLAY



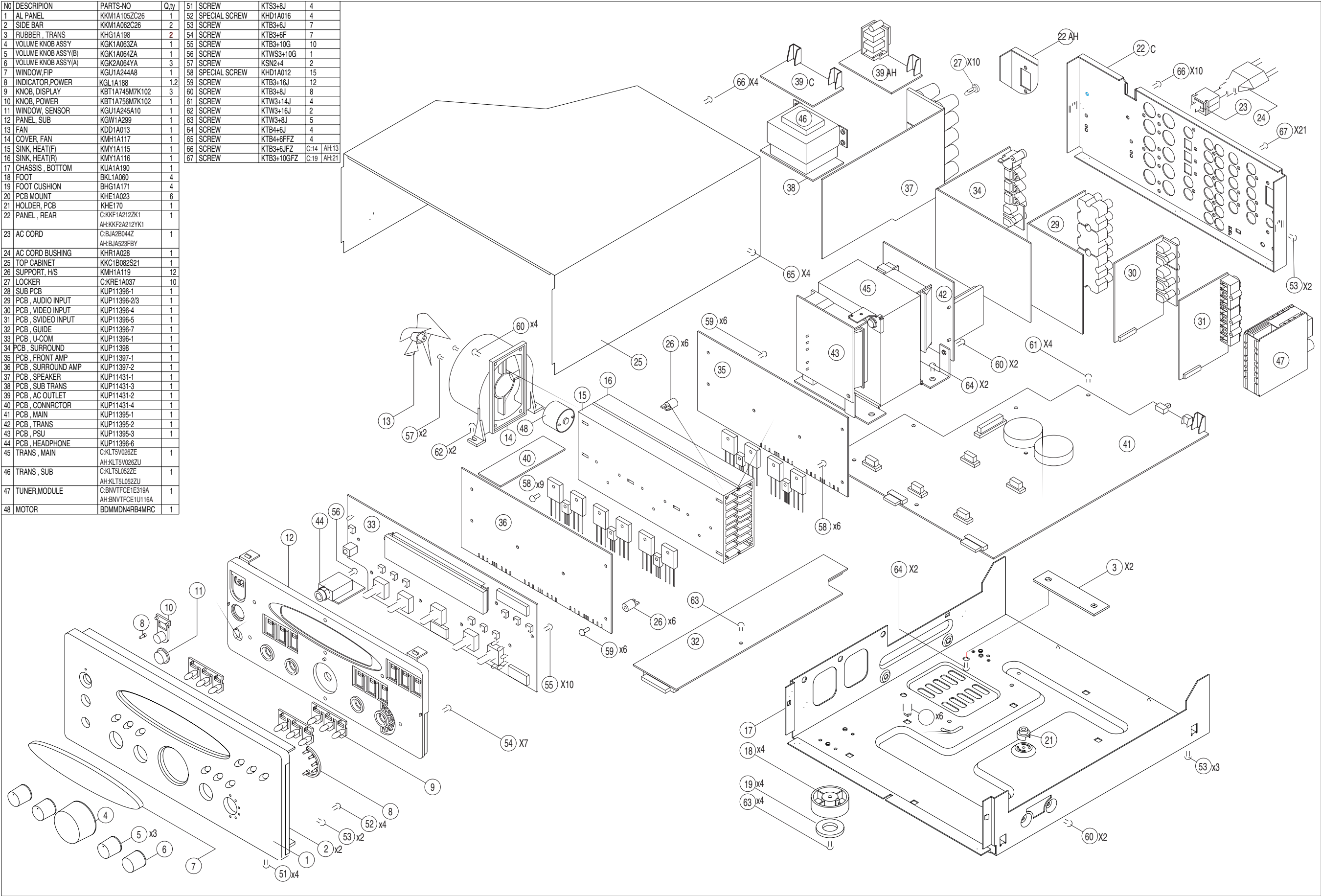
## REMOTE CONTROL



1. POWER ON/OFF button (L75/L55)
2. SLEEP button (L75)
3. INPUT SOURCE Selector buttons (L75)
4. SURROUND MODE button (L75)
5. TEST TONE button (L75)
6. NUMERIC button (L75/L55)
7. PROGRAM button (L55)
8. OSD ON/OFF button (L75), DVD SET UP button (L55)
9. DIGITAL INPUT/RDS button (L75), DVD DISPLAY button (L55)
10. TITLE button (L55)
11. MENU buttons (L55)
12. ARROW buttons (L75/55)  
VOLUME UP/DOWN, PRESET UP/DOWN buttons (L75)
13. ENTER button (L75/55)
14. RETURN button (L55)
15. MUTE button (L75)
16. OPEN/CLOSE buttons (L55)
17. STOP button (L55)
18. PLAY button (L55)
19. FOR/ REV, SCAN/SKIP button (L55)
20. SLOW buttons (L55)
21. PAUSE/STEP button (L55)
22. REPEAT button (L55)
23. CLEAR button (L55)
24. AUDIO button (L55)
25. ANGLE button (L55)
26. ZOOM button (L55)
27. SUBTITLE button (L55)
28. SWITCH



EXPLODED VIEW



# SECTION 2

## ELECTRICAL CONTENTS

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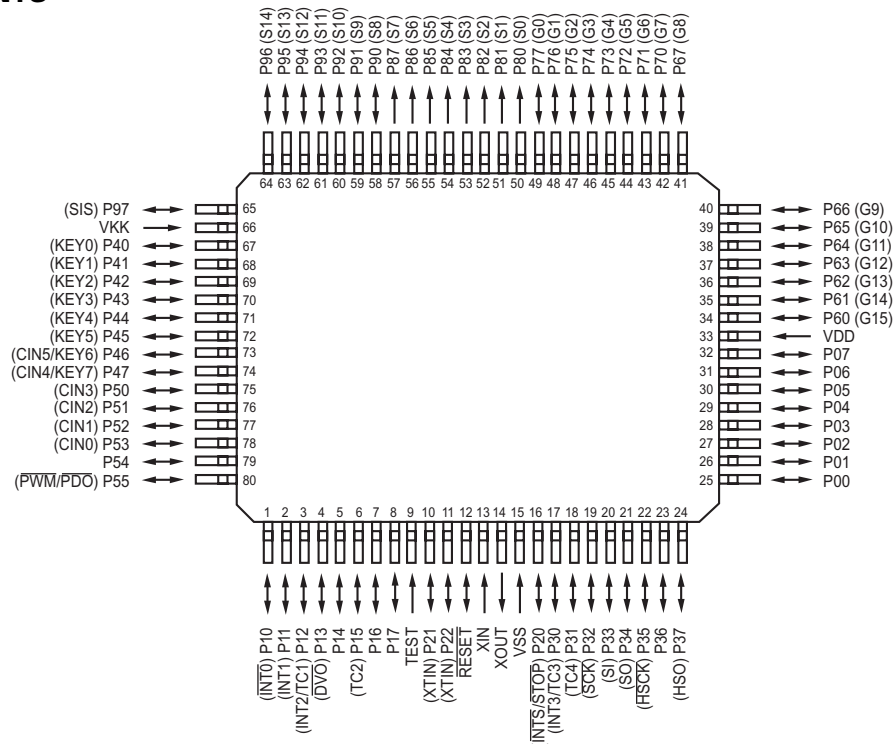
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## IC PIN FUNCTION (IC81 : TMP87PS71F-ANAM 1328AT OTP, UCOM)

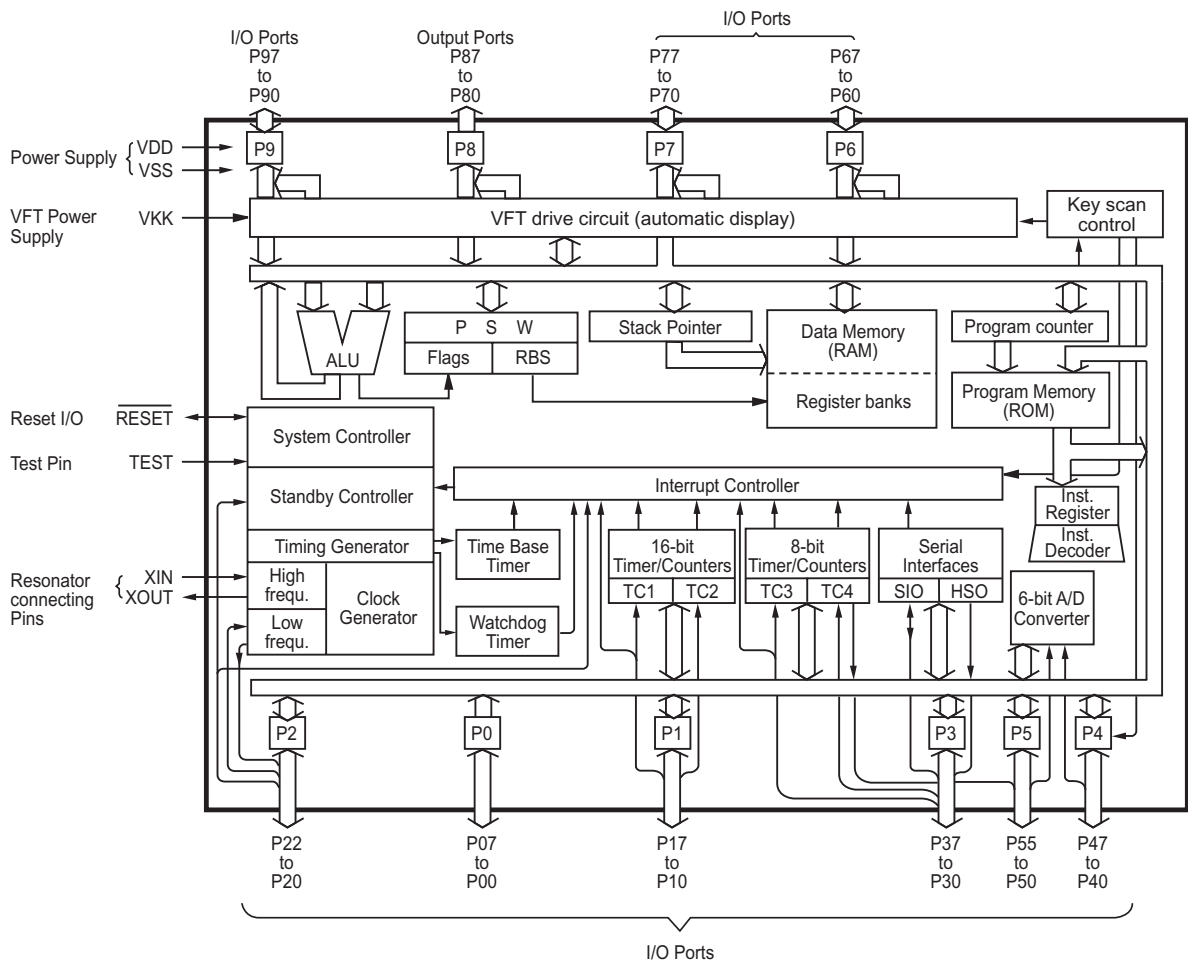
PIN No.	SYMBOL	I/O	DESCRIPTION
1	-	-	Not Use (No connection)
2	REMOTE IN	I	Remote Control Sensor Data Input
3	RDS CLK	O	RDS IC (SA6579TV1) CLK/Data Port
4	RDS DATA	I	
5	Function Mute	O	Function Mute Control Output port (Active "H")
6	EVOL Data	O	Electronic Vol. IC (TC9482F) Data/CLK/STB Port
7	EVOL CLK	O	
8	EVOL CE (STB)	O	
9	Vpp (Test)	-	Program Supply Voltage (GND Connection)
10	XIN	I	32.788KHz Crystal Connection Port
11	XOUT	O	
12	RESET	I	Reset Input Port ("L")
13	X IN	I	8MHz Cystal Connection Port
14	X OUT	O	
15	Vss (GND)	I	Device GND Port
16	Back Up	I	Back Up Mode Control Port ("L")
17	Function SW 2	I	Function Selector (ENCODER) Control port
18	Function SW 1	I	
19	Power ON	O	Power ON Control port (Active "L")
20	YSS912 DIN	O	YSS912 Data Input Ports
21	OSD CS	O	ODS IC (ANAM2024V) Chip Selector Port
22	Surr./OSD CLK	O	Surr./OSD CLK Output port
23	YSS912 CS	O	Chip Selector port for YSS912
24	Surr./OSD Data	O	Surr./OSD Data Output Port
25	AK4112 CS	O	Chip Selector Port for AK4112
26	YSS912 CSBN	O	Sub DSP Chip Selector for YSS912
27	YSS912 RESET	O	Reset (Initial Clear) Port for YSS912
28	PLL Data In	I	PLL IC (LC72131) Data Input Port
29	Func. STB	O	Func. IC (KIC9163/64) Strobe Control Port
30	CLK 3	O	Func./PLL IC CLK Control Port
31	DATA 3	O	Func./PLL IC Data Control Port
32	PLL CE	O	PLL IC (LC72131) Chip Enable Control Port
33	VDD/VCC	-	Power Supply Port (+5V)
34 ~ 35	Option/VFL Grid	O	Option Control Port/ VFL Grid Control Port
36 ~ 43	VFL Grid	O	VFL Grid Control Port
44 ~ 65	FIP Segment	O	VFL Segment Control Port
66	Vkk	-	VFL Power Supply Port (-30V)
67	Option	I	Option Control Port
68	Protect IN	I	Protect Input Port ("L")
69	Stereo IN	I	Stereo Display Control Port ("L")
70	Tuned IN	I	Tuned Display Control Port ("L")
71	OSD IN	I	ODS Input Control Port
72	Hphone IN	I	Headphone In/ Out Defect Port
73	Video Mute	O	Videon Mute Control Port ("L")
74	SP ON/OFF	I	Speaker ON/OFF Control Port
75, 76	Volume (Encoder)	I	Master Volume Up/Down Control Port
77, 78	KEY Matrix	I	Key Control Input Port
79	STB	O	Extended IC (NJU3713G) Strobe Control Port
80	Tuner Mute	O	Tuner Mute Control Port

u-COM IC PIN ASSIGNMENT & BLOCK DIAGRAM

PIN ASSIGNMENTS (TOP VIEW)



BLOCK DIAGRAM



## AC 3/DTS DECODER (YSS912C:IC34)

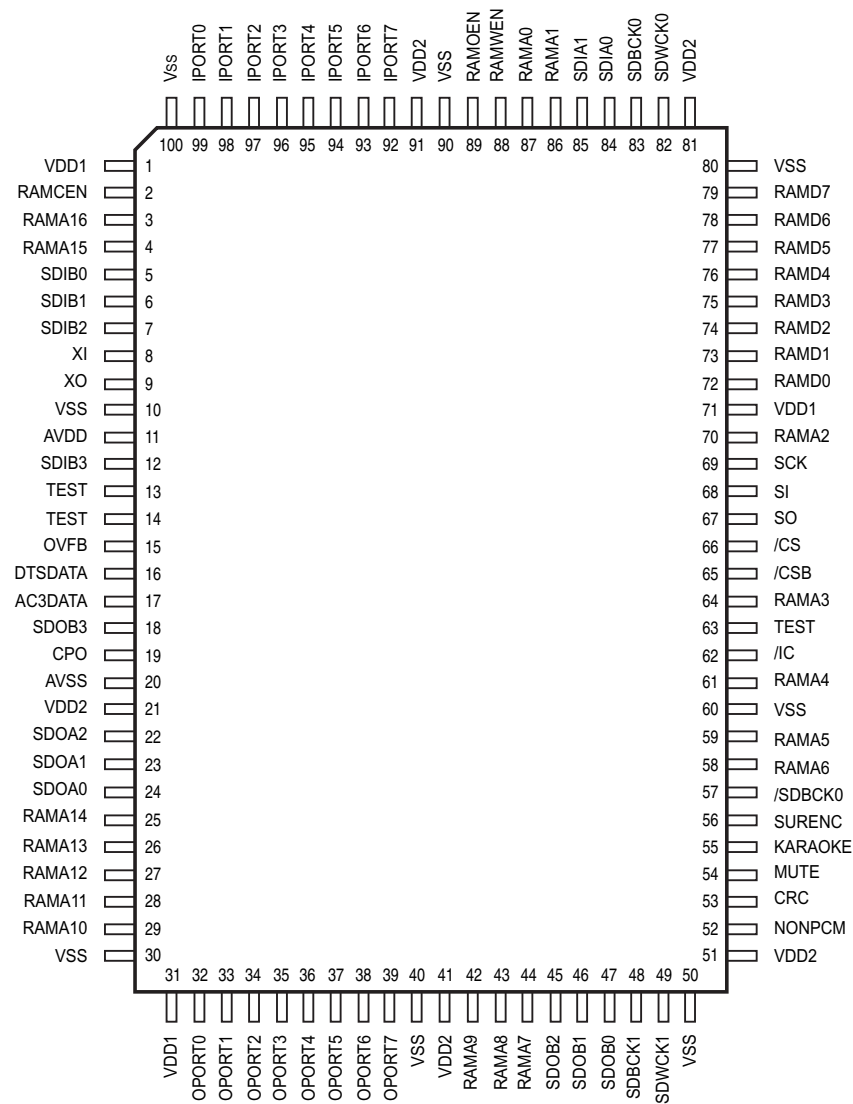
PIN No.	SYMBOL	I/O	DESCRIPTION
1,31,71	VDD1	-	+5V Power Supply(for I/Os)
2	RAMCEN	O	External SRAM interface /CE
3	RAMA16	O	External SRAM interface address 16 (not use)
4	RAMA15	O	External SRAM interface address 15 (not use)
5	SDIB0	I+	PCM input 0 to Sub DSP(not use)
6	SDIB1	I+	PCM input 1 to Sub DSP(not use)
7	SDIB2	I+	PCM input 2 to Sub DSP(not use)
8	XI	I+	Crystal oscillator connection(12.288MHz)
9	XO	O	
10, 20	VSS	-	Ground
11	AVDD	-	+3.3V power supply (for PLL circuit)
12	SDIB3	I+	PCM input 3 to Sub DSP (not use)
13	TEST	-	Test terminal(to be open in normal use)
14	TEST	-	Test terminal(to be open in normal use)
15	OVFB	O	Detection of overflow at Sub DSP (not use)
16	DTSDATA	O	Detection of DTS data (not use)
17	AC3DATA	O	Detection of AC-3 data (not use)
18	SDOB3	O	PCM output from Sub DSP (not use)
19	CPO	A	Output terminal for PLL,to be connected to ground through the external analog filter circuit
20	AVSS	-	Ground for PLL circuit)
21,41,51,81,91	VDD2	-	+3.3V power supply (for core logic)
22	SDOA2	O	PCM output from Main DSP (C,LFE) (not use)
23	SDOA1	O	PCM output from Main DSP (LS,RS) (not use)
24	SDOA0	O	PCM output from Main DSP (L,R) (not use)
25 ~ 29	RAMA 14~10	O	External SRAM interface address 14~10
32	OPORT 0	O	Output port for general purpose
33 ~ 39	OPORT 1~7	O	Output port for general purpose (not use)
40,50,60,80,90,100	VSS	-	Ground
42 ~ 44	RAAM 9~7	O	External SRAM interface address 9~7
45 ~ 47	SDOB 2~0	O	PCM output from Sub DSP
48	SDBCK1	I+	Bit clock input for SDOA,SDIB,SDOB (not use)
49	SDWCK1	I+	Word clock input for SDOA,SDIB,SDOB (not use)
52	NONPCM	O	Detection of non-PCM data (not use)
53	CRC	O	Detection of AC-3 CRC error (not use)
54	MUTE	O	Detection of auto mute (not use)
55	KARAOKE	O	Detection of AC-3 karaoke data (not use)
56	SURENC	O	Detection of AC-3 2/0 mode Dolby surround encoded input (not use)
57	/SDBCK 0	O	Inverted SDBCK0 clock output (not use)
58	RAMA6	O	External SRAM interface address 6
59	RAMA5	O	External SRAM interface address 5
61	RAMA4	O	External SRAM interface address 4
62	/IC	Is	Initial clear
63	TEST	-	Test terminal (to be open in normal use)
64	RAMA3	O	External SRAM interface address 3
65	/CSB	Is+	Sub DSP Chip select
66	/CS	Is	Microprocessor interface Chip select input
67	SO	Ot	Microprocessor interface serial data output
68	SI	Is	Microprocessor interface /Sub DSP Serial data input
69	SCK	Is	Microprocessor interface /Sub DSP clock input

PIN No.	SYMBOL	I/O	DESCRIPTION
70	RAMA2	O	External SRAM interface address 2
72 ~ 79	RAMD0~7	I+/O	External SRAM interface data (STREAM0~7 output when External SRAM is not in use)
82	SDWCK0	I	Word clock input for SDIA, SDOA, SDIB, SDOB
83	SDBCK0	I	Bit clock input for SDIA,SDOA,SDIB,SDOB
84	SDIA0	I	AC-3 Bitstream (or PCM) data input for Main DSP
85	SDIA1	I	AC-3 Bitstream (or PCM) data input for Main DSP
86	RAMA1	O	External SRAM interface address 1
87	RAMA0	O	External SRAM interface address 0
88	RAMWEN	O	External SRAM interface /WE
89	RAMOEN	O	External SRAM interface /OE
92 ~ 99	IPORT7~0	I+	Input port for general purpose (not use)

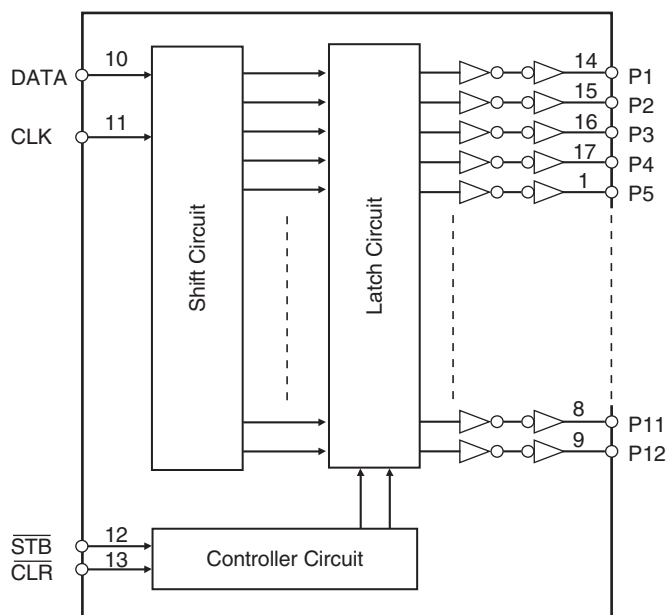
NOTE) Is: Schmidt trigger input terminal  
 O: Digital output terminal  
 A: Analog terminal

It: Input terminal with pull-up resistor  
 Ot: Tri-state digital output terminal

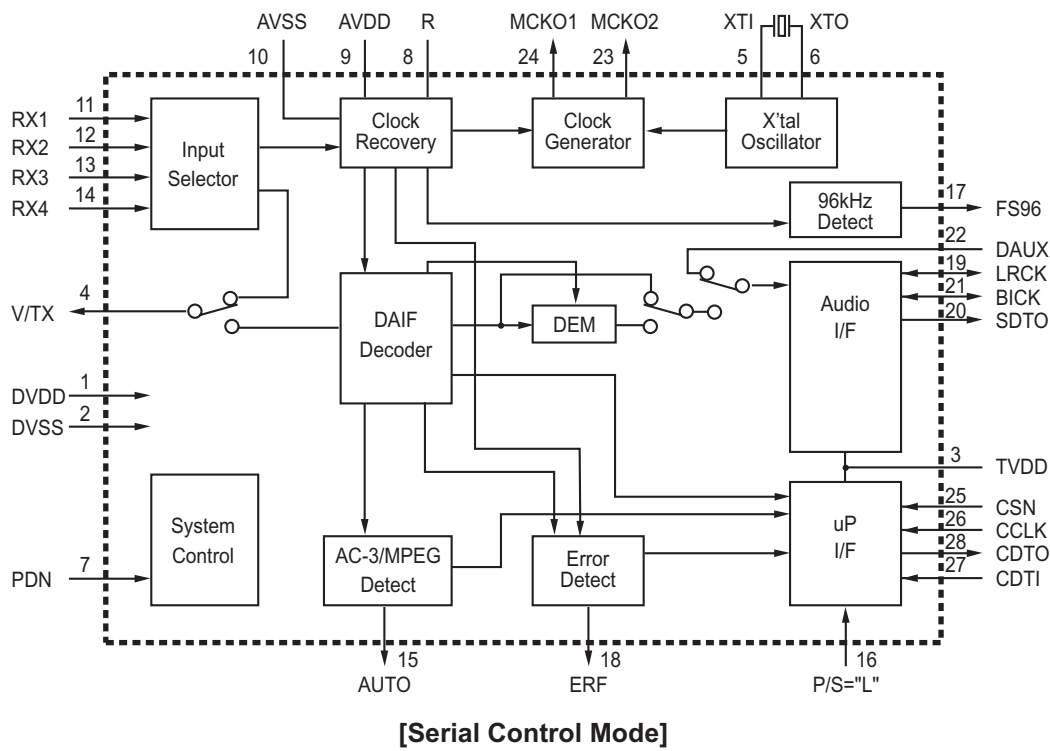
### YSS912C PIN CONFIGURATION



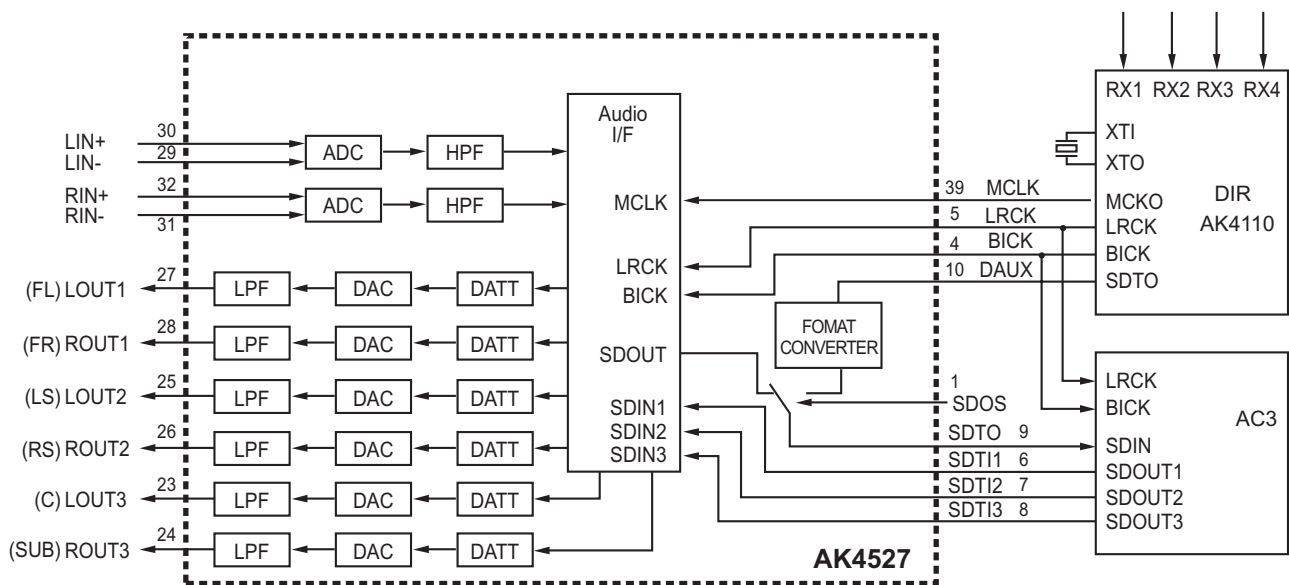
## NJU3713G (EXPANDOR IC 84)



AK4112AVF (DIR IC32)

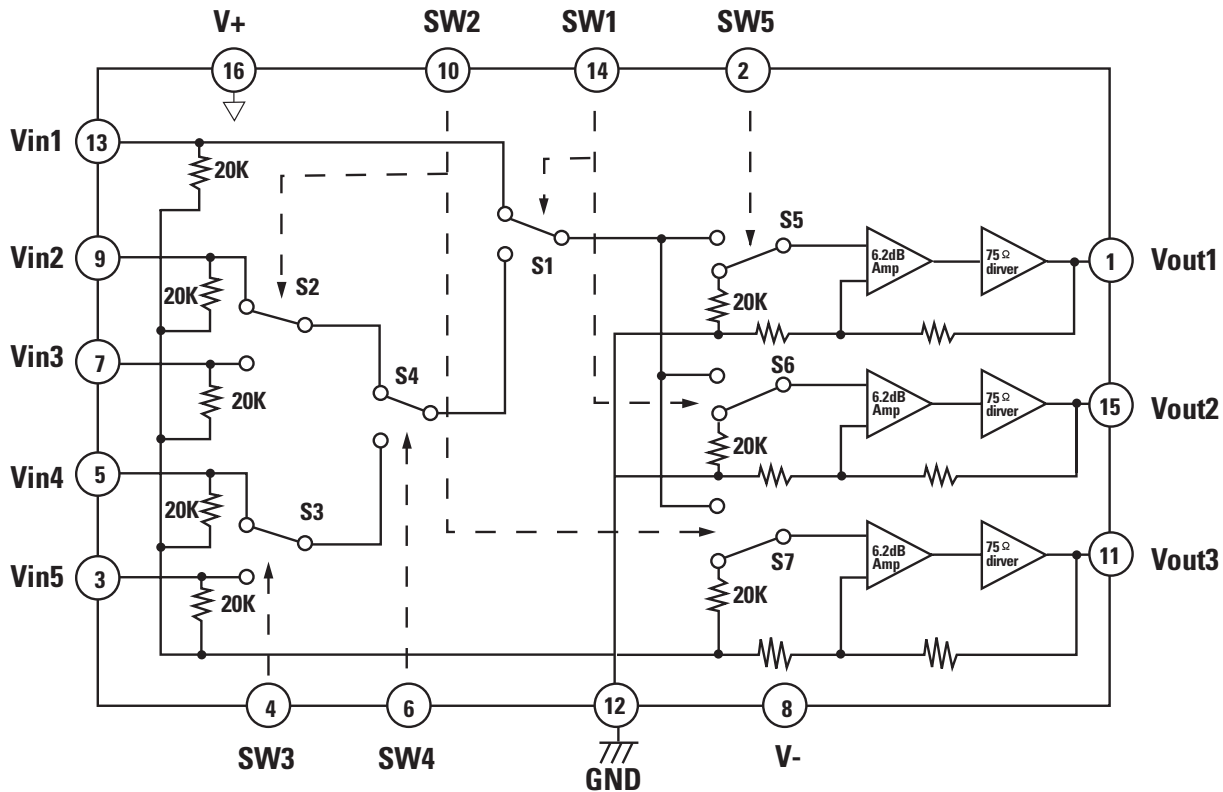


AV4527VQ (CODEC IC33)



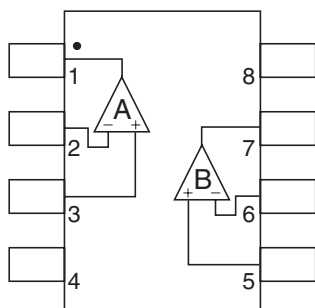


■ NJM2296M (VIDEO SW / IC21, 22, 23)



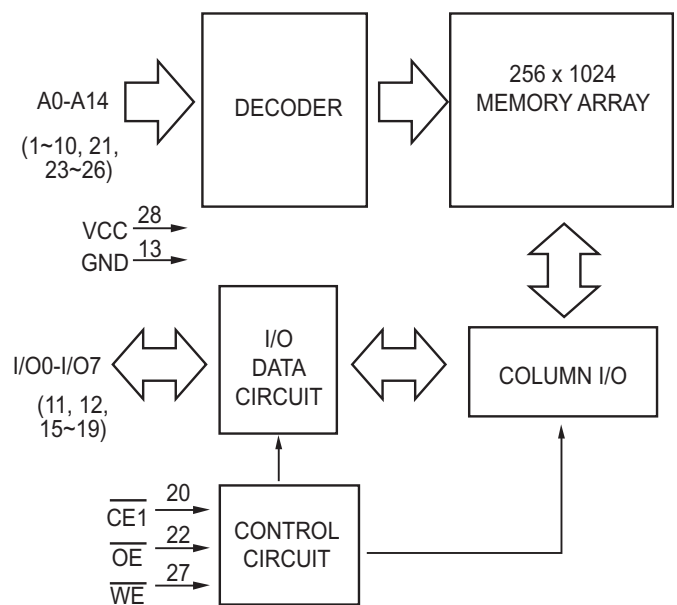
\* Normally mute  
Above circuits show that the switches are set at low.

OPA2134UA / NJM 2068MD)  
(OP AMP / IC12~15, 37~42, 82)



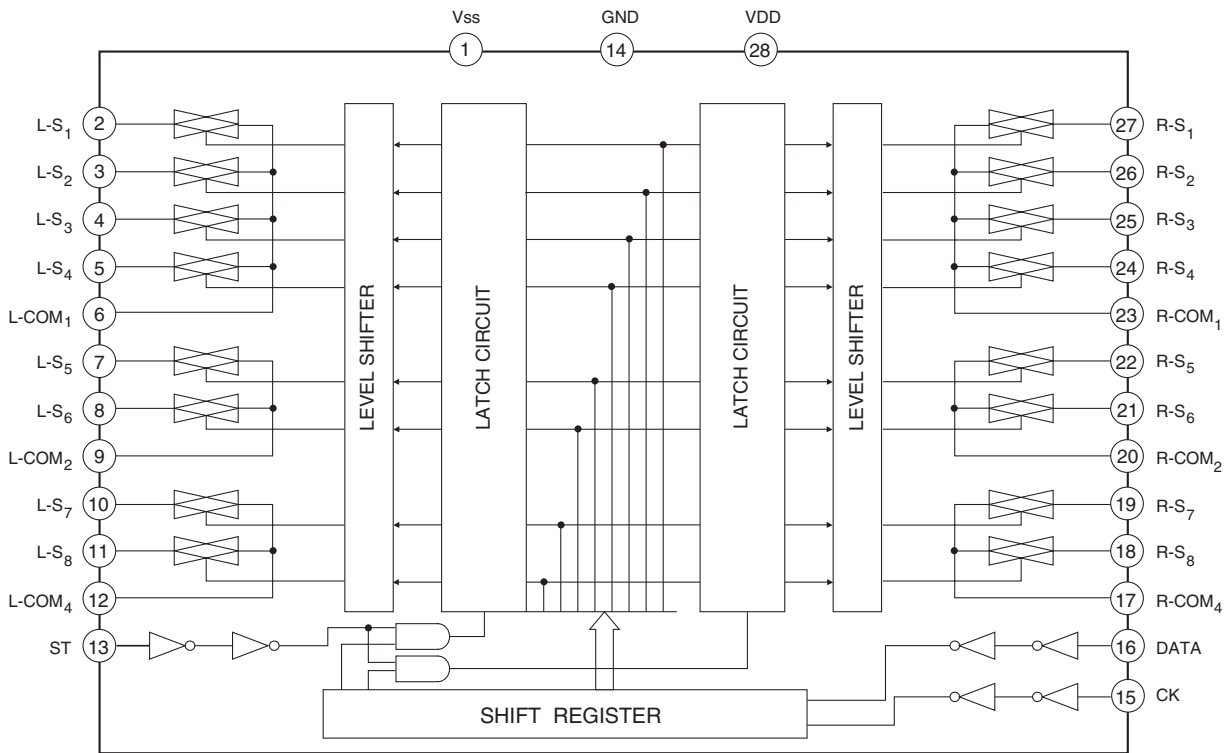
PIN FUNCTION  
1. A OUTPUT  
2. A-INPUT  
3. A+INPUT  
4. V-  
5. B-INPUT  
6. B-INPUT  
7. B OUTPUT  
8. V+

■ IS61C256A15J (256K SRAM. IC35)



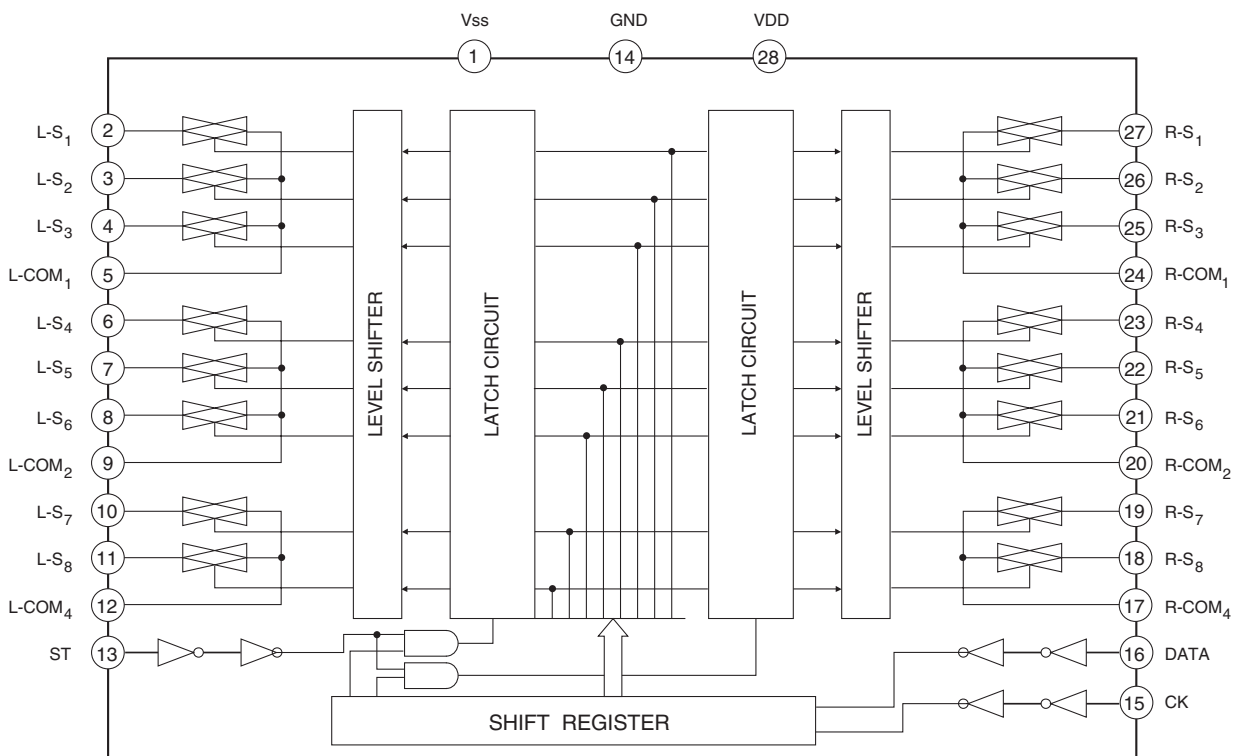
## TC9164AF (FUNCTION IC36)

## ■ BLOCK DIAGRAM

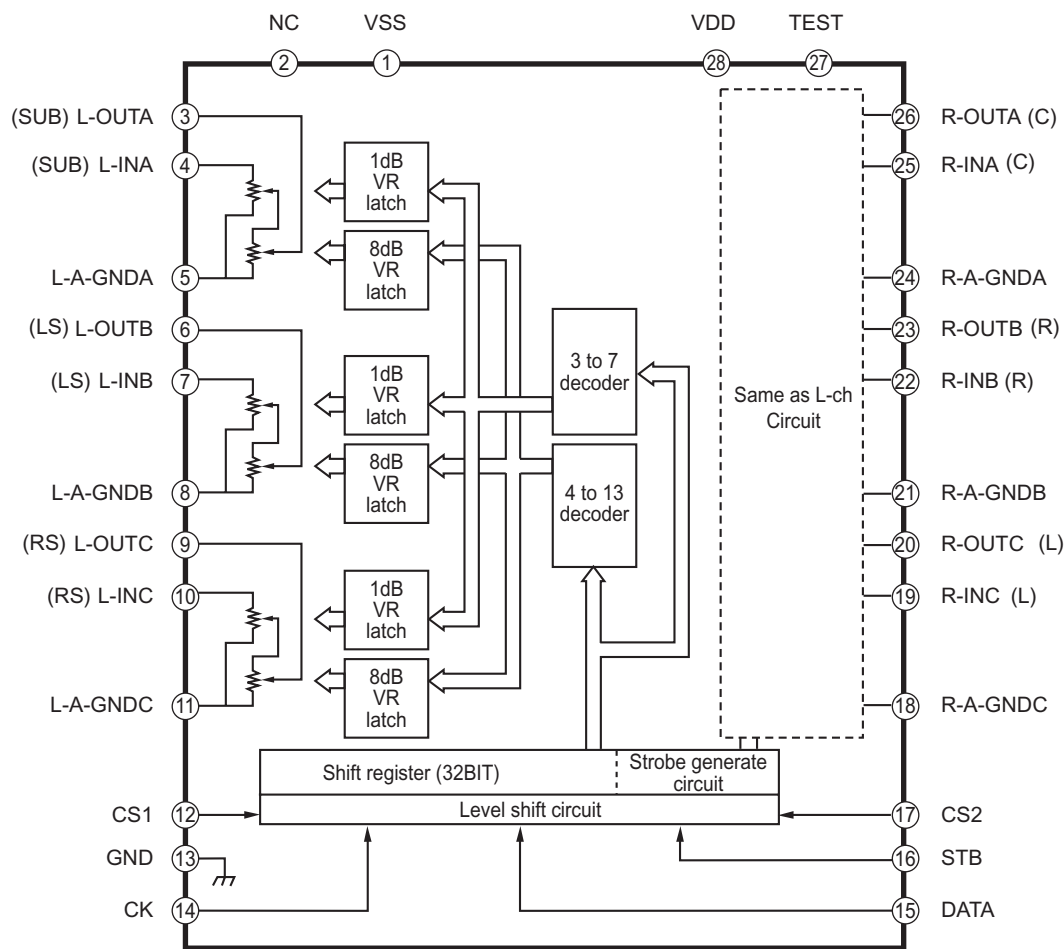


## TC9163AF (FUNCTION IC11)

## ■ BLOCK DIAGRAM

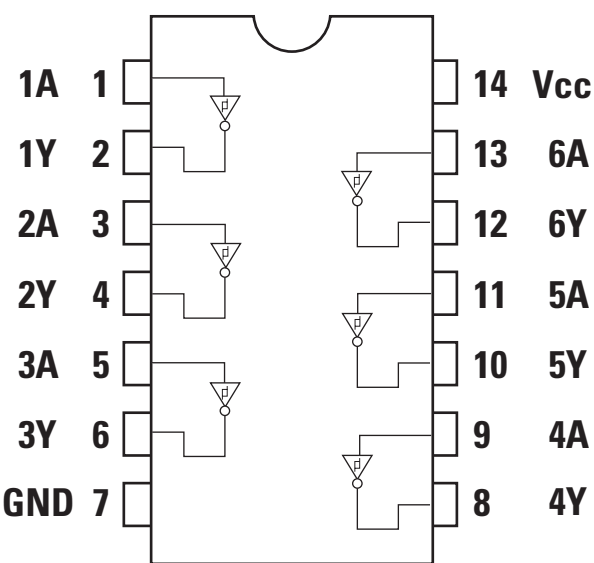
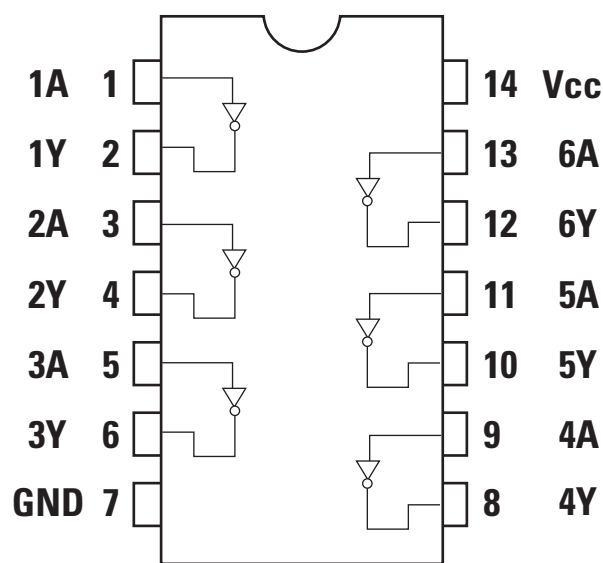


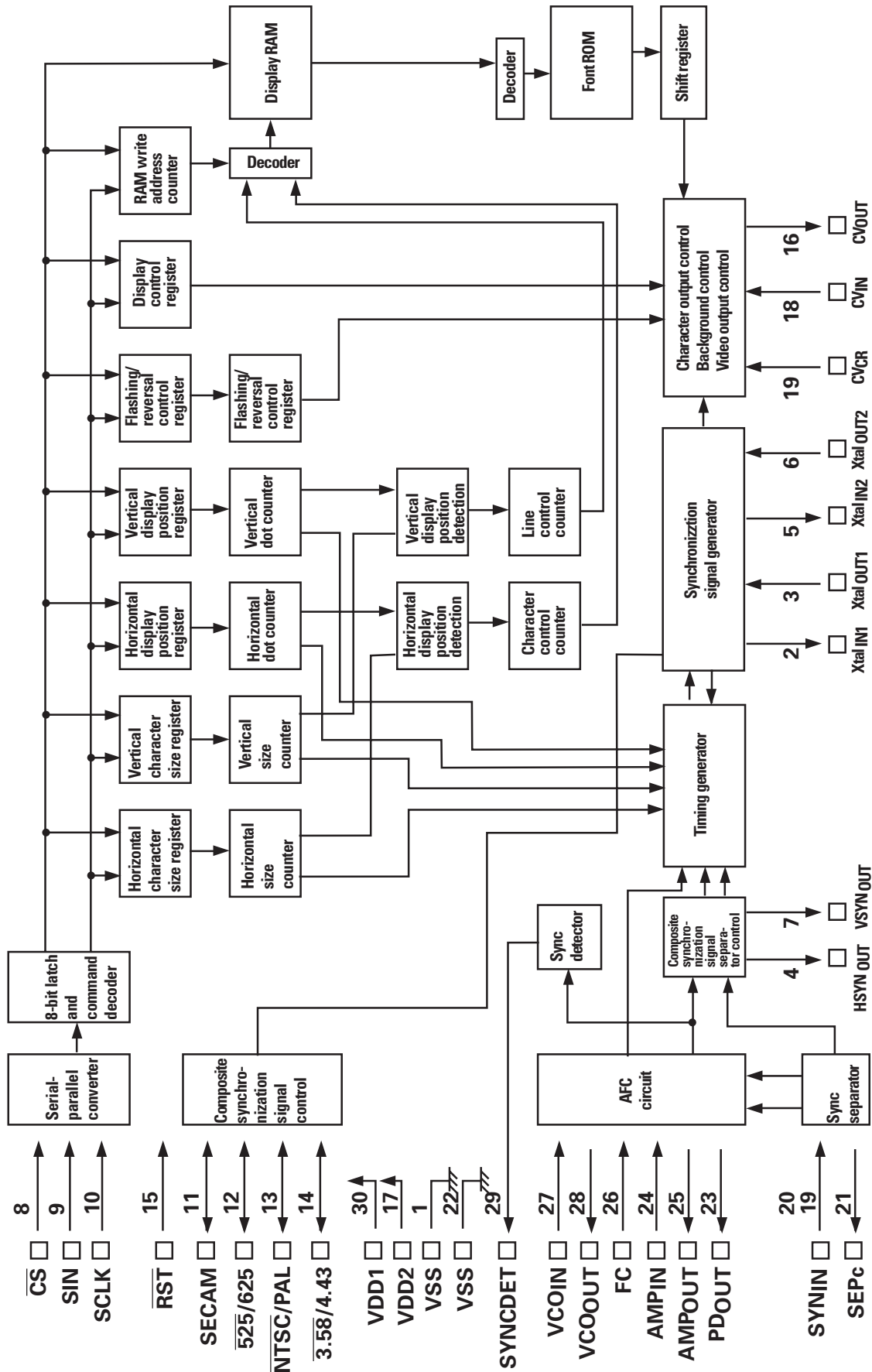
TC9482F (ELECTRONIC VOLUME IC16)



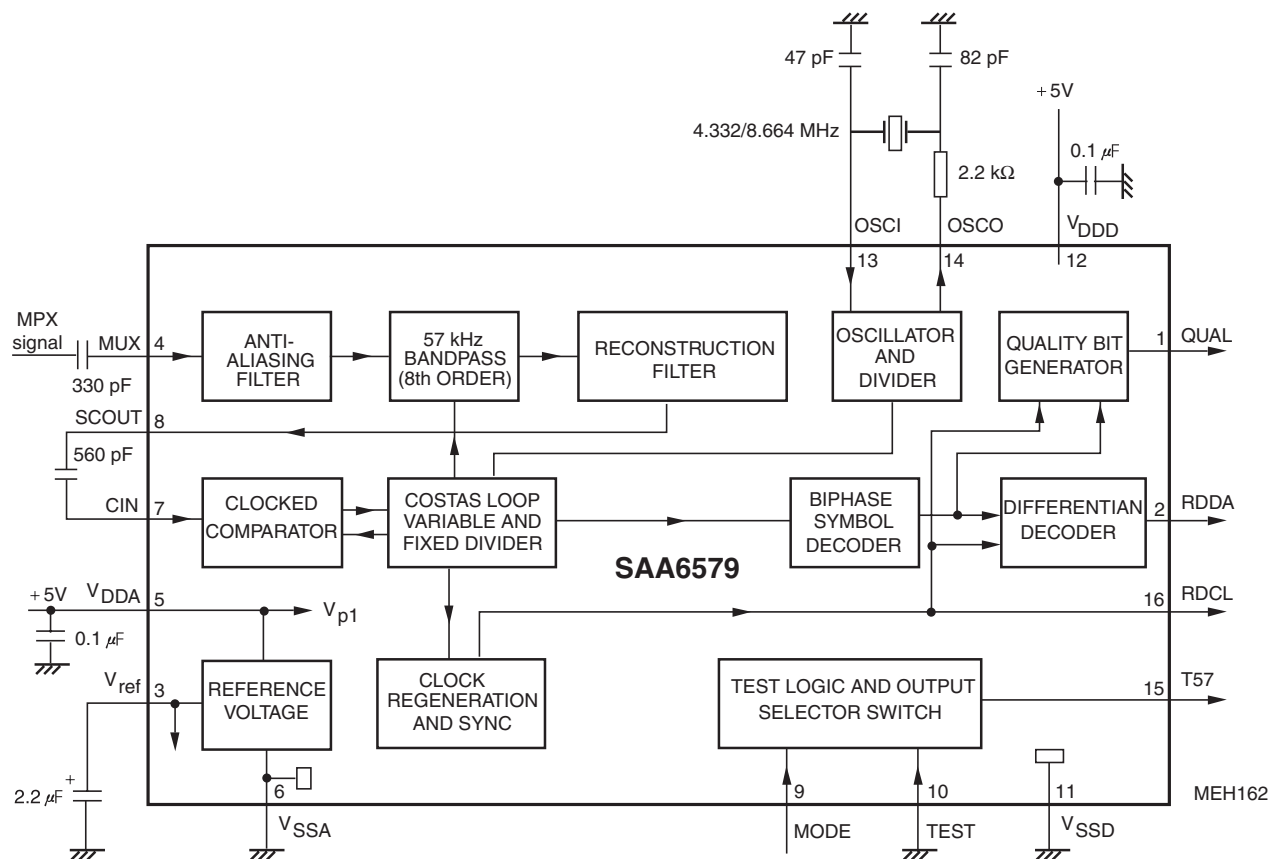
■ TC74 HCU04AFN (INVERTER IC31)

■ MC74HC14D (INVERTER IC85)













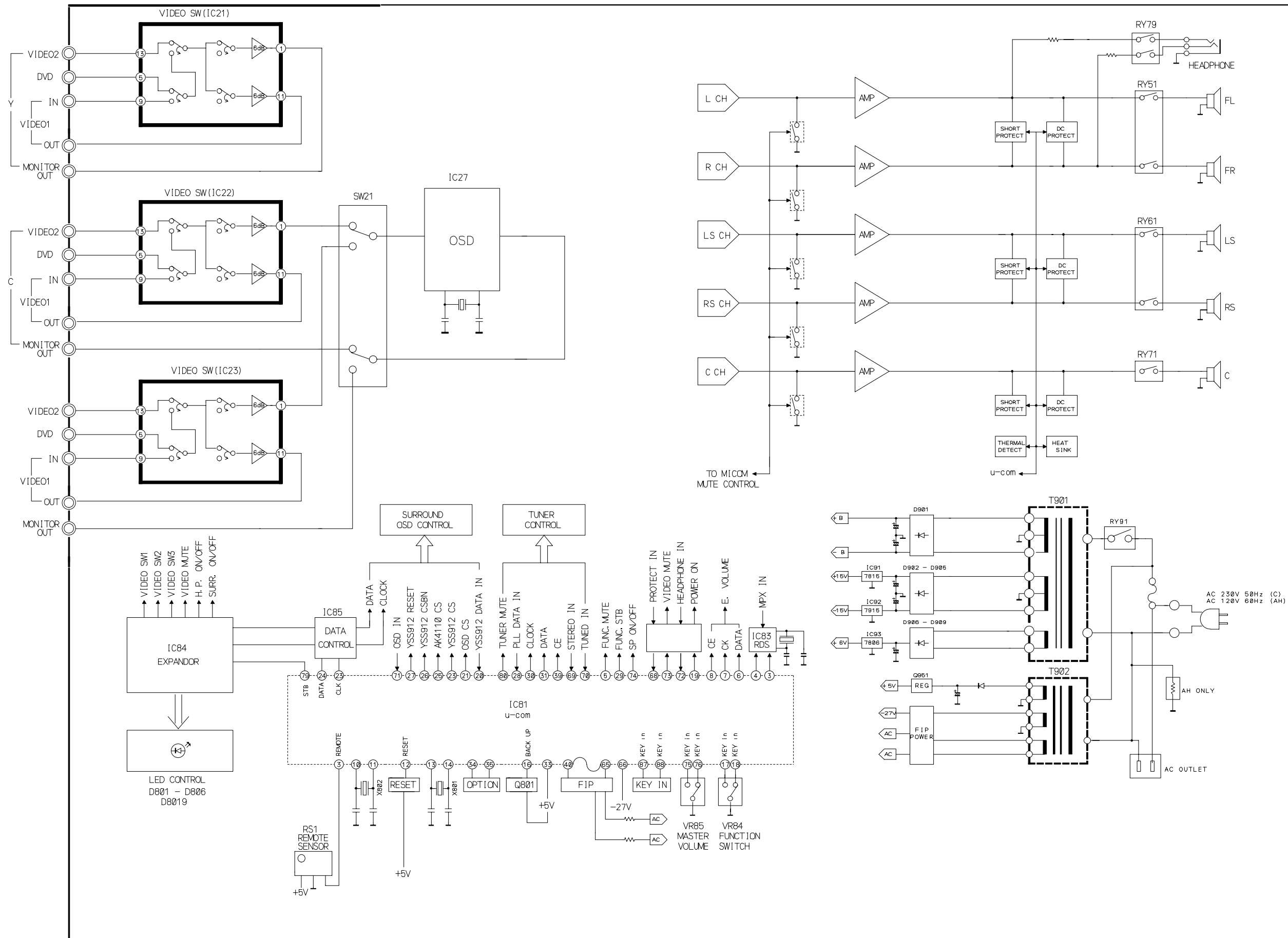
SAA6579TV1 (RDS FILTER IC83)



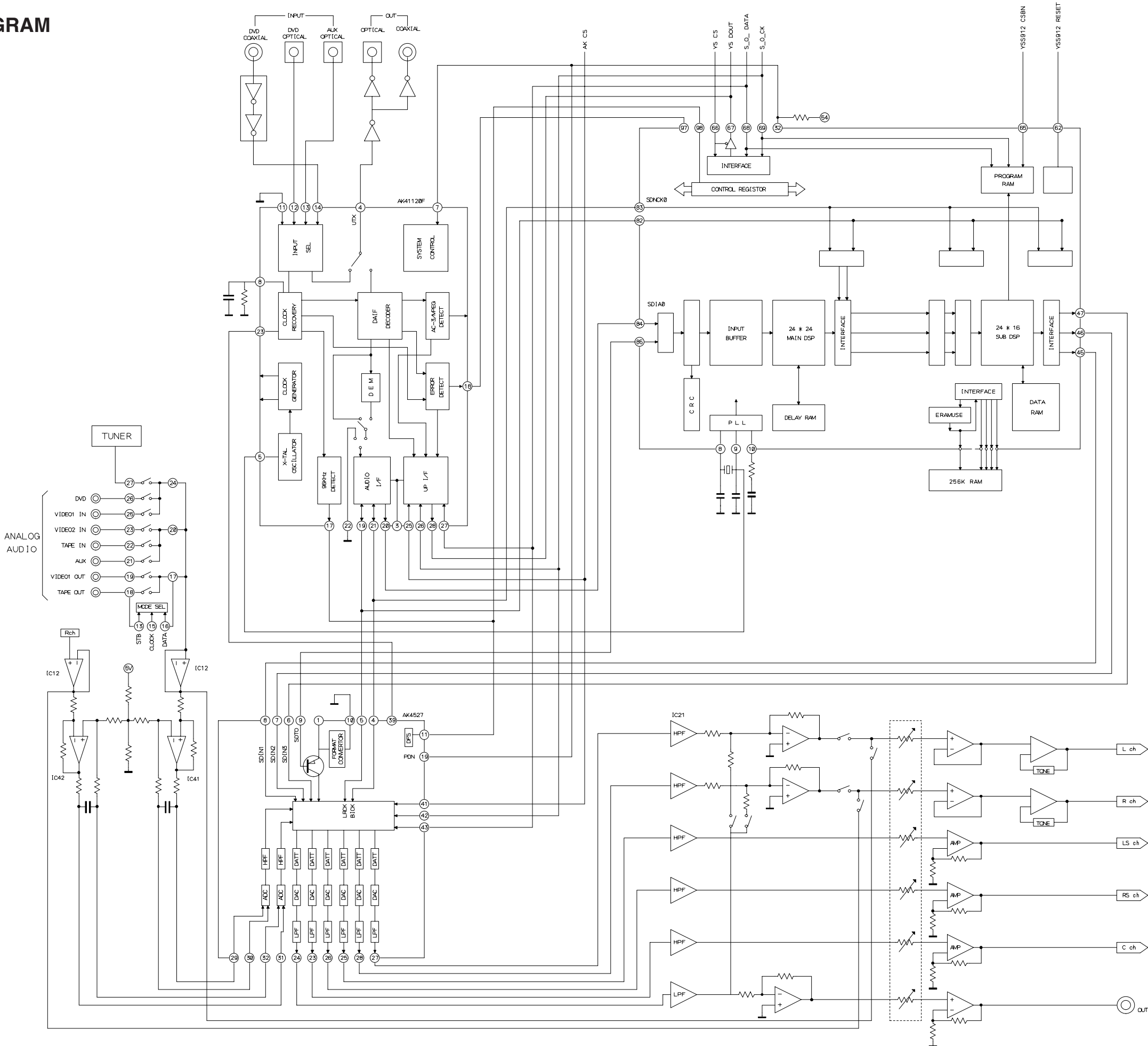
TRANSISTOR, REGULATOR IC BLOCK DIAGRAM

<p>TO-92L</p>  <p>1. Emitter 2. Collector 3. Base</p> <p><b>123</b></p> <p>KSA1175Y DTC144TS KTA1271Y KSD811Y DTC144ES DTA144ES DTA114YS DTC114YS DTC143TS DTA144TS</p>	<p>TO-92</p>  <p>1. Emitter 2. Collector 3. Base</p> <p><b>123</b></p> <p>KTD1302T KTA1268GR KTC3200GR KSC2785Y KTC31940</p>	<p>TO-220</p>  <p>1. DC IN 2. DC OUT 3. GND</p> <p><b>123</b></p> <p>MC7915C</p>	<p>TO-92L</p>  <p>1. Emitter 2. Collector 3. Base</p> <p><b>123</b></p> <p>KSA916Y KSC2316Y</p>
<p>TO-126</p>  <p>1. Emitter 2. Collector 3. Base</p> <p><b>123</b></p> <p>2SC4137V KSC34230 2SD13600</p>	<p>TO-220</p>  <p>1. Base 2. Collector 3. Emitter</p> <p><b>123</b></p> <p>KSA614Y KSD288Y 2SB1186AE 2SD1763AE</p>	<p>TO-220</p>  <p>1. DC IN 2. GND 3. DC OUT</p> <p><b>123</b></p> <p>MC7815C MC7805C</p>	<p>TO-3P</p>  <p>1. Base 2. Collector 3. Emitter</p> <p><b>1 2 3</b></p> <p>2SD3856 2SC4468 2SA1492 2SA1695</p>

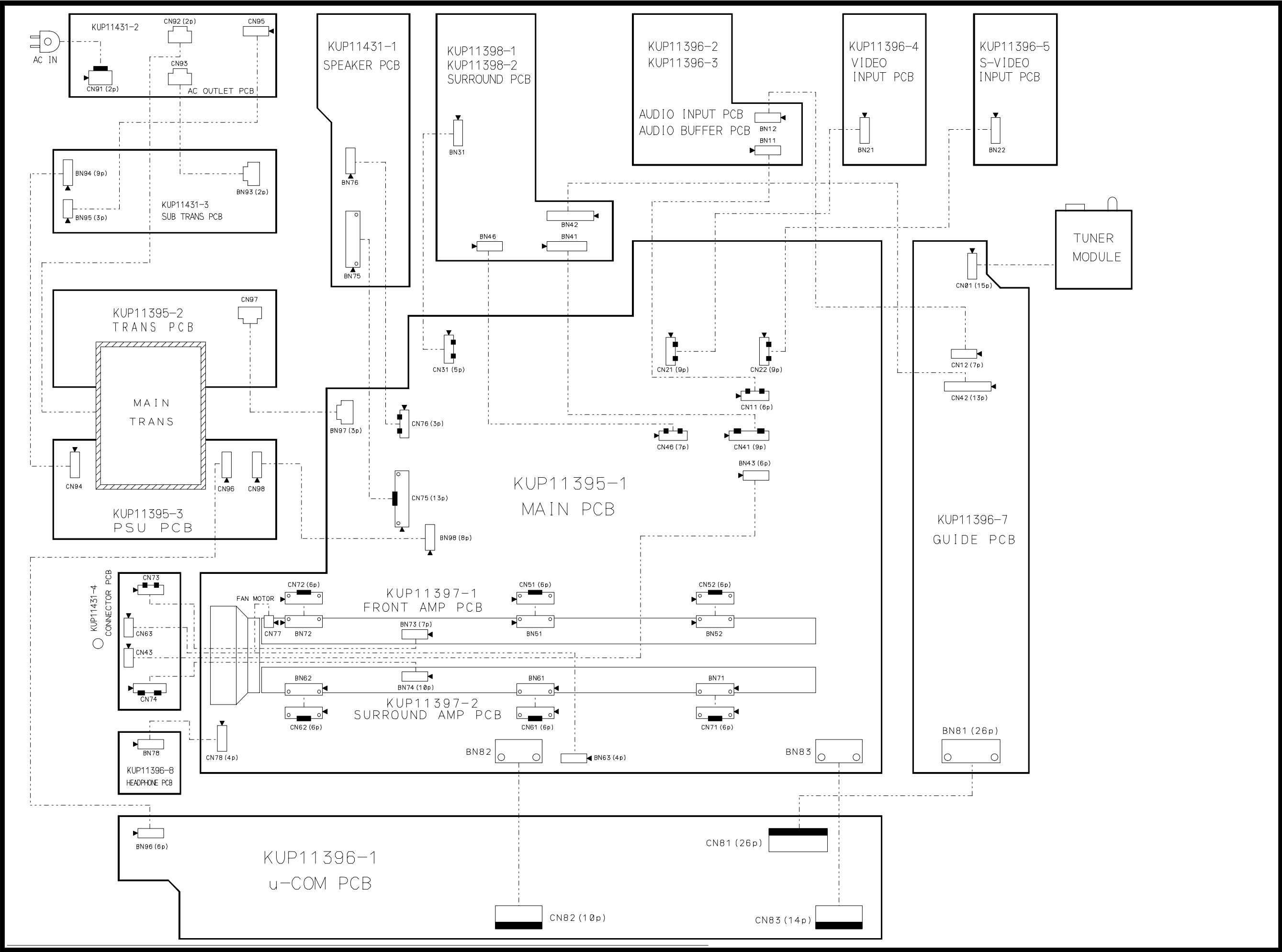
# 1. BLOCK DIAGRAM



## BLOCK DIAGRAM



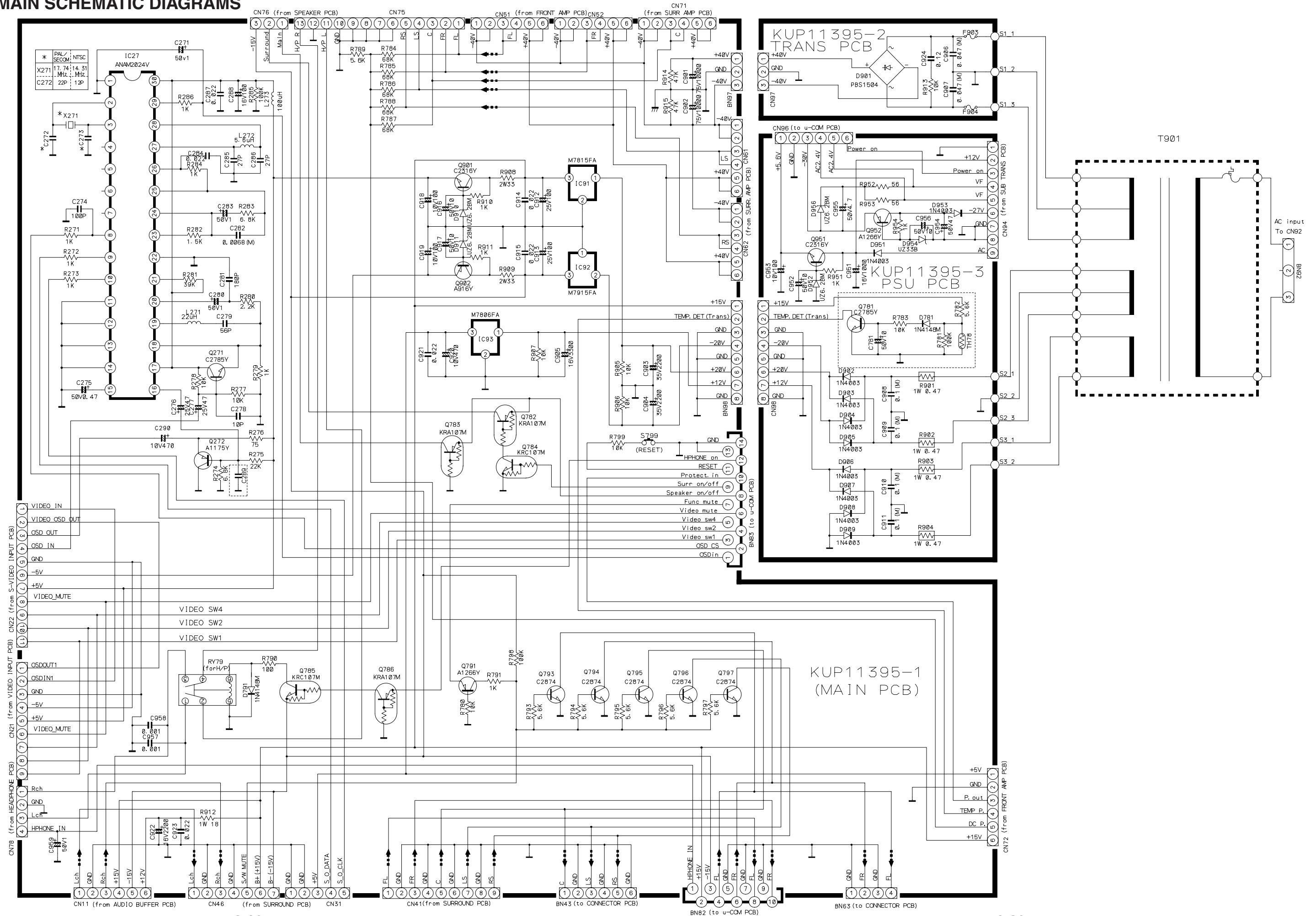
2. WIRING DIAGRAM



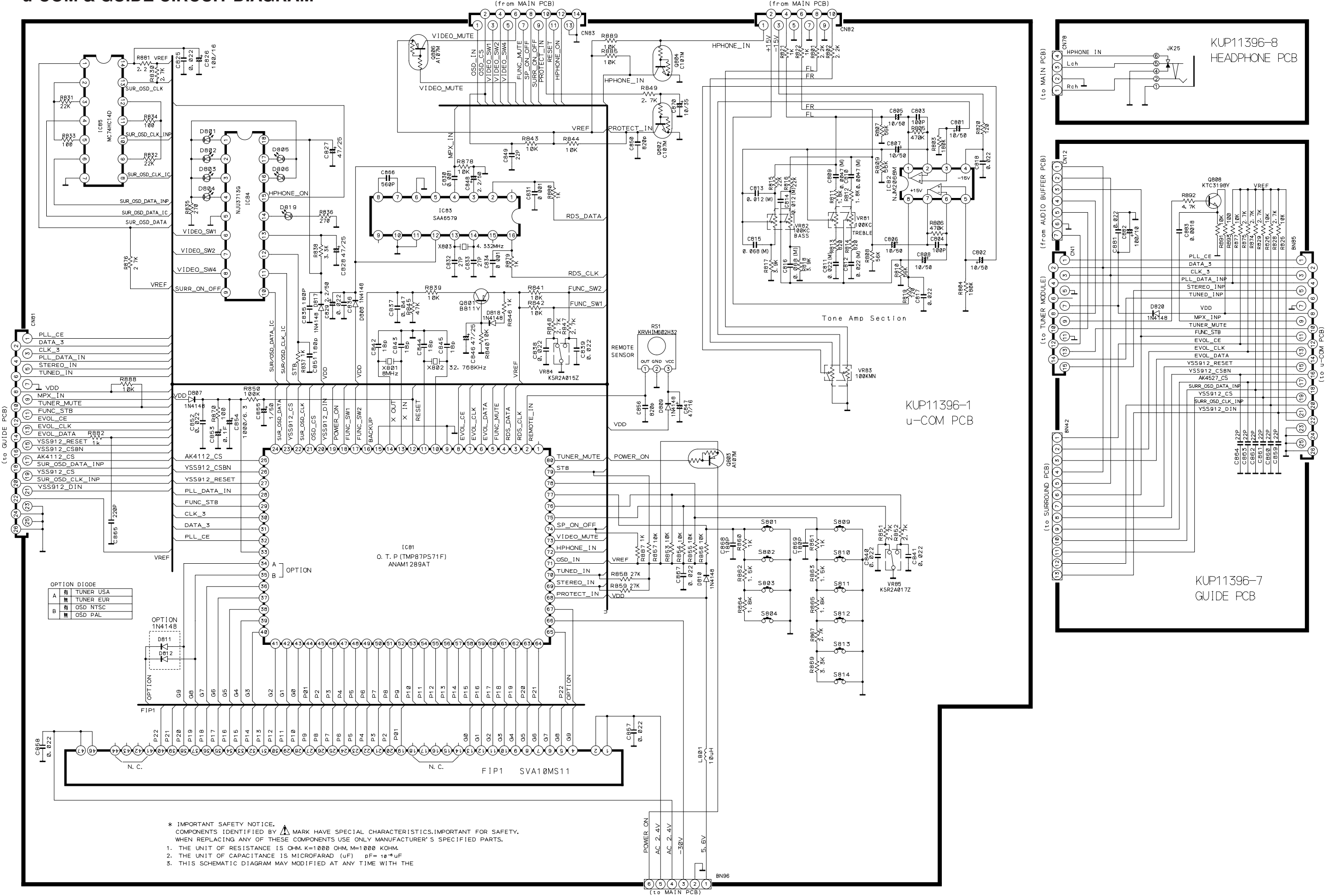


### 3. SCHEMATIC DIAGRAMS

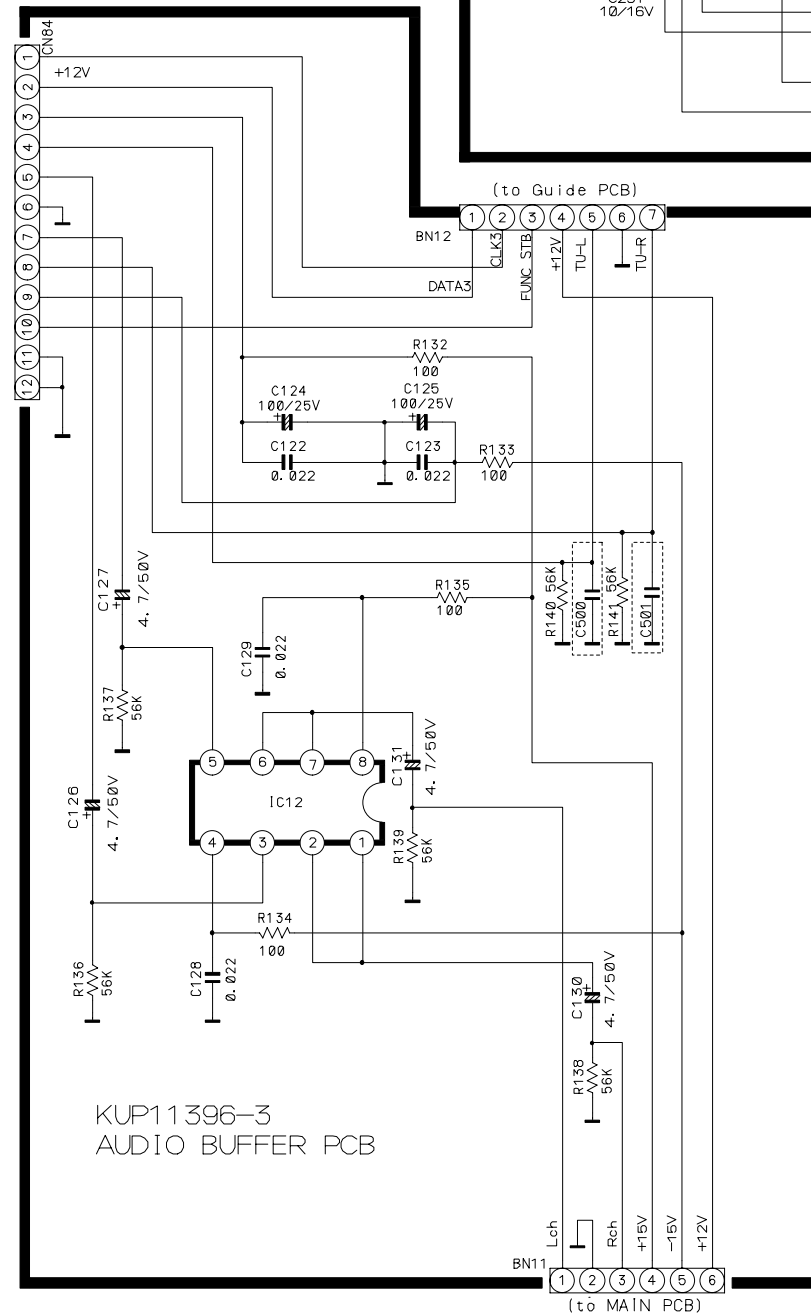
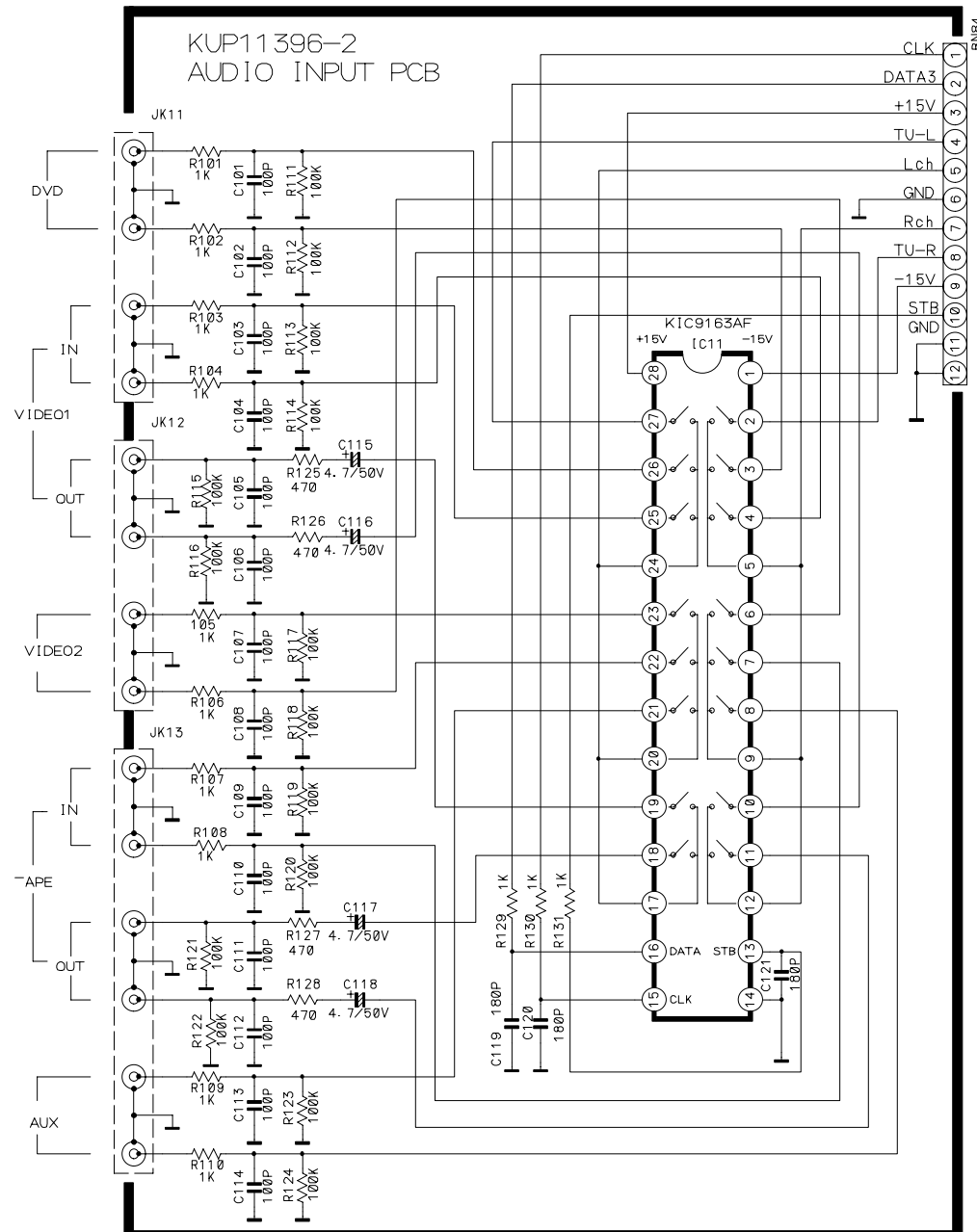
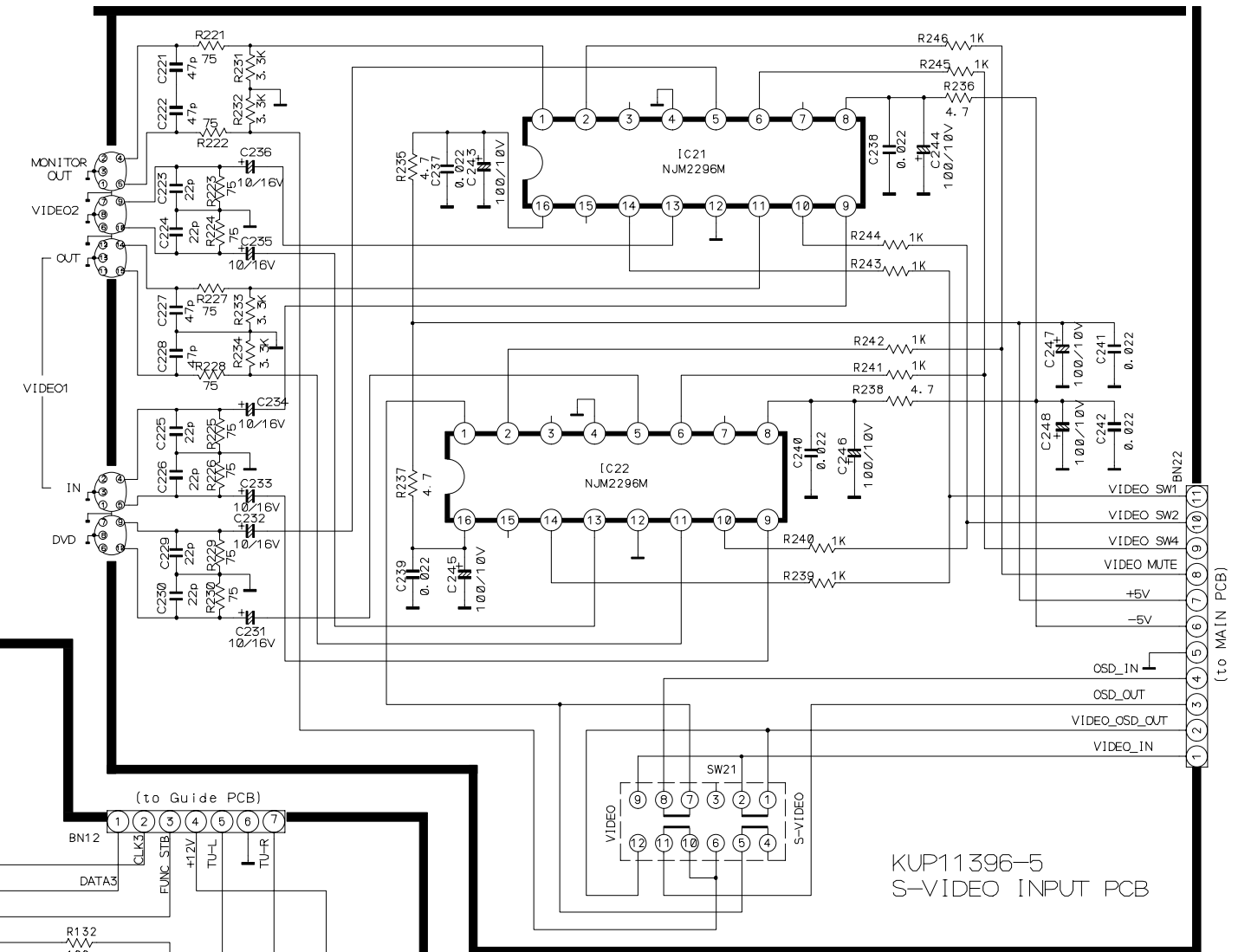
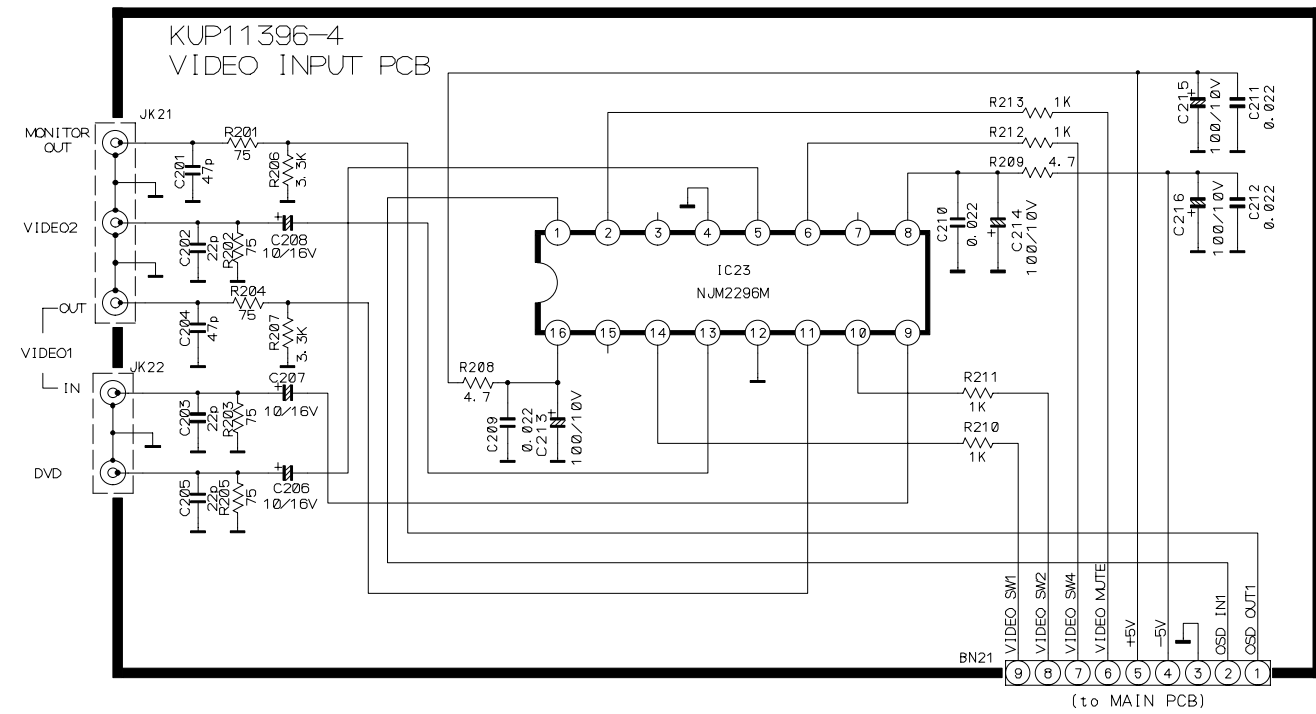
#### MAIN SCHEMATIC DIAGRAMS



u-COM & GUIDE CIRCUIT DIAGRAM



## INPUT SCHEMATIC DIAGRAM

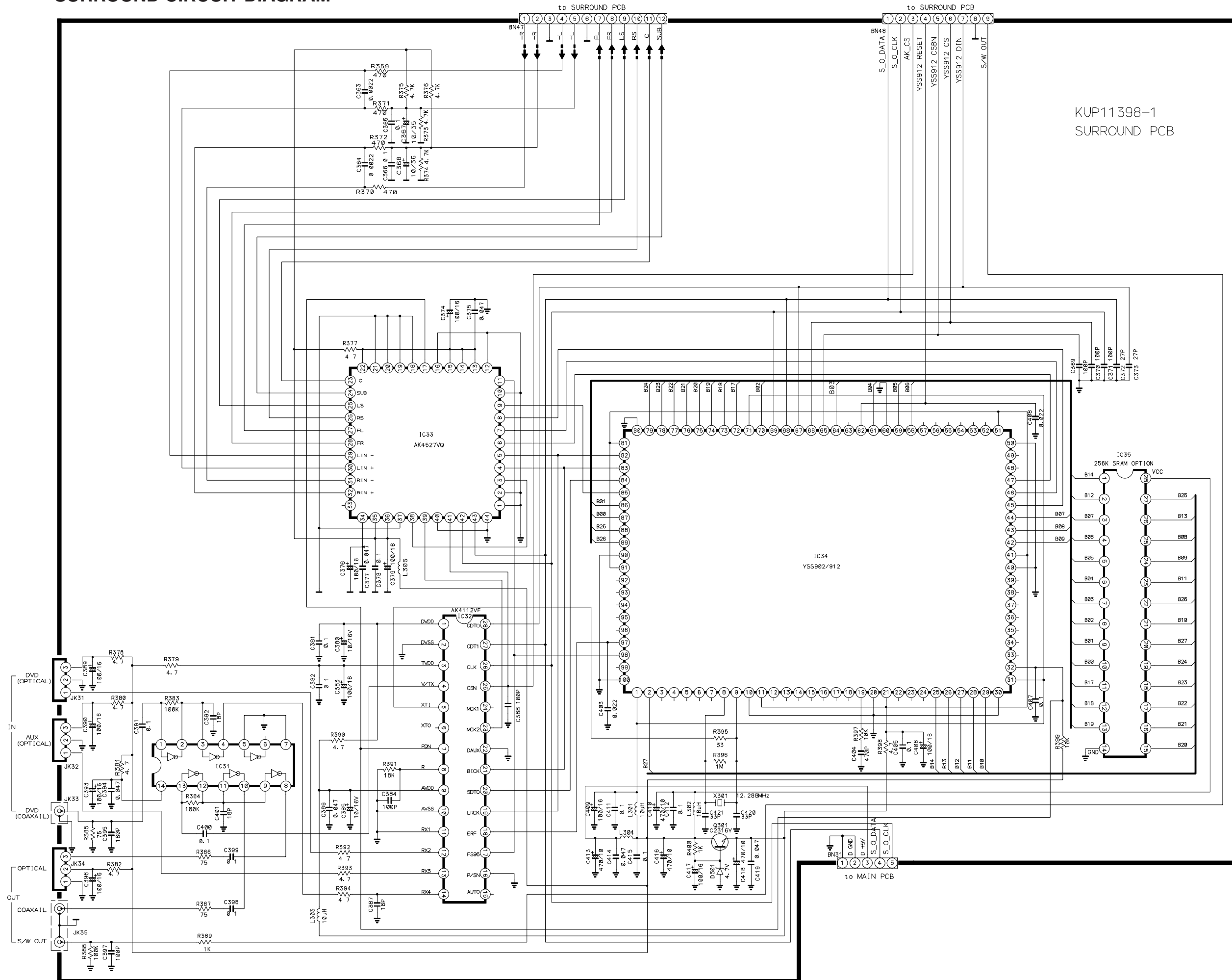




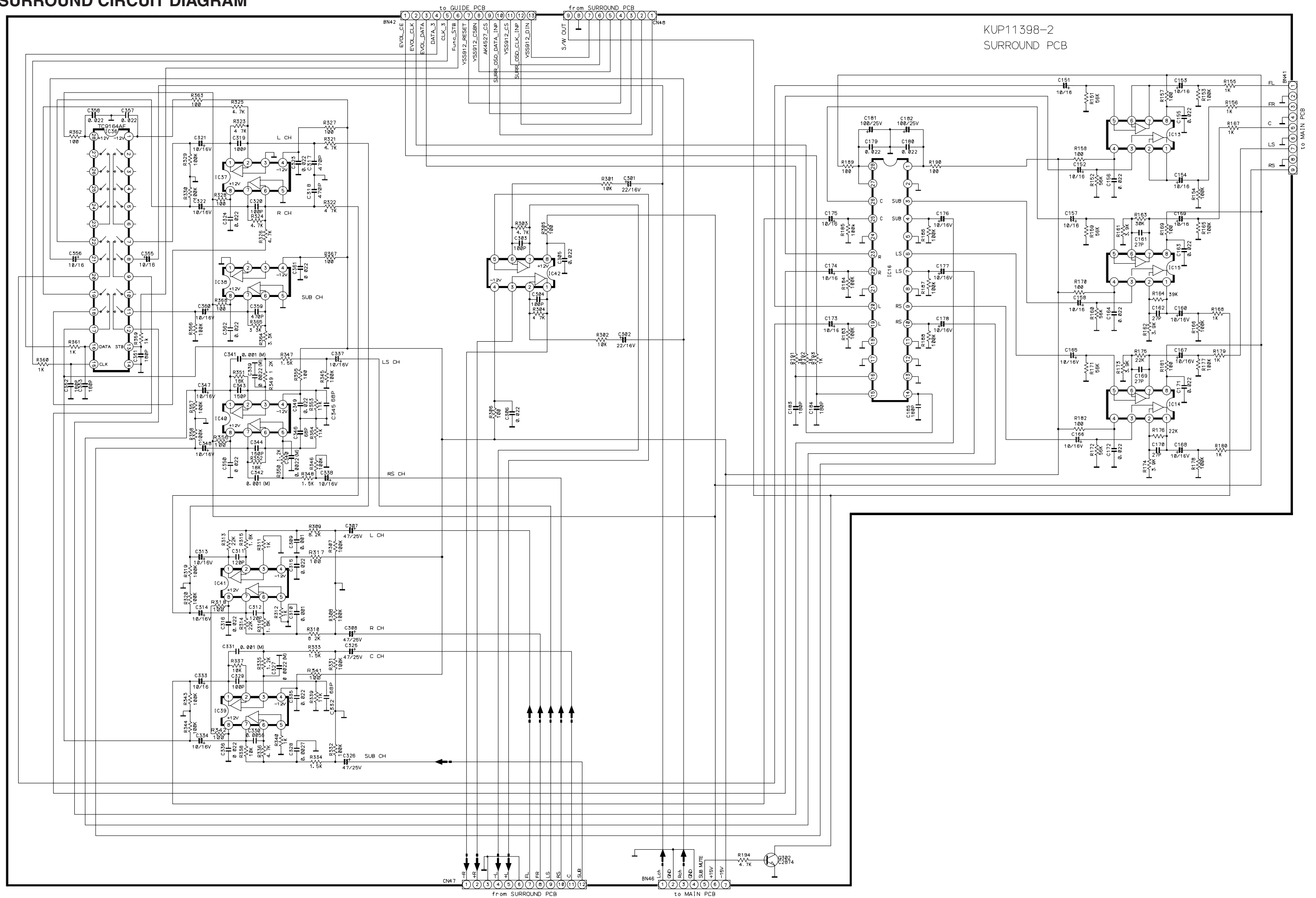
KUP11397-2  
(SURROUND AMP PCB)

C version : 230V 50Hz  
AH version : 120V 60Hz

## SURROUND CIRCUIT DIAGRAM



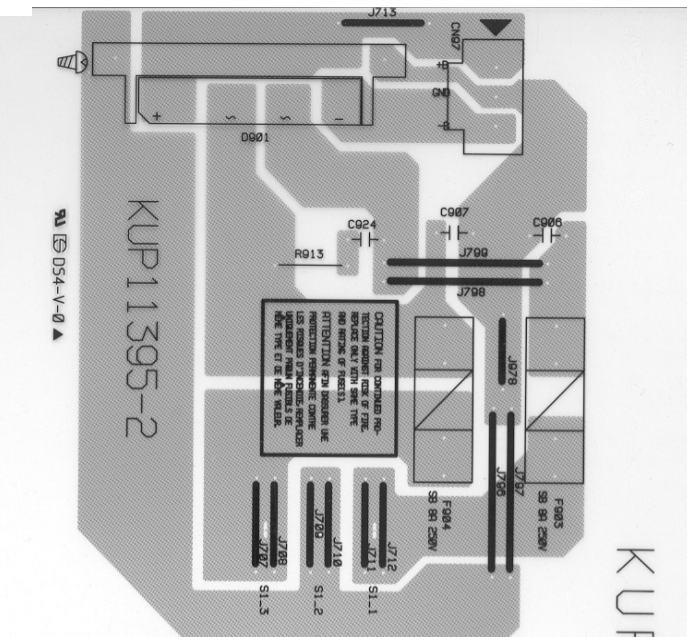
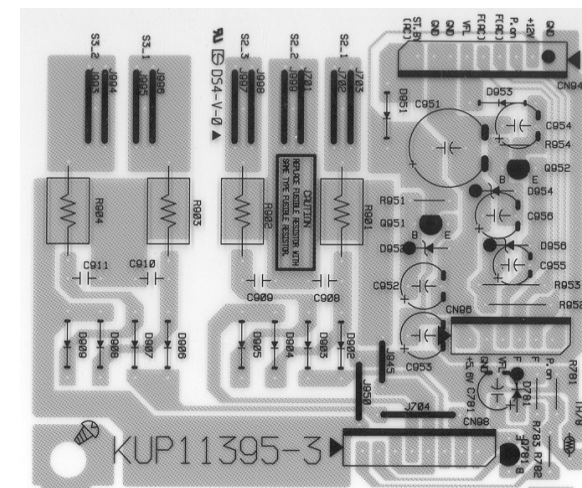
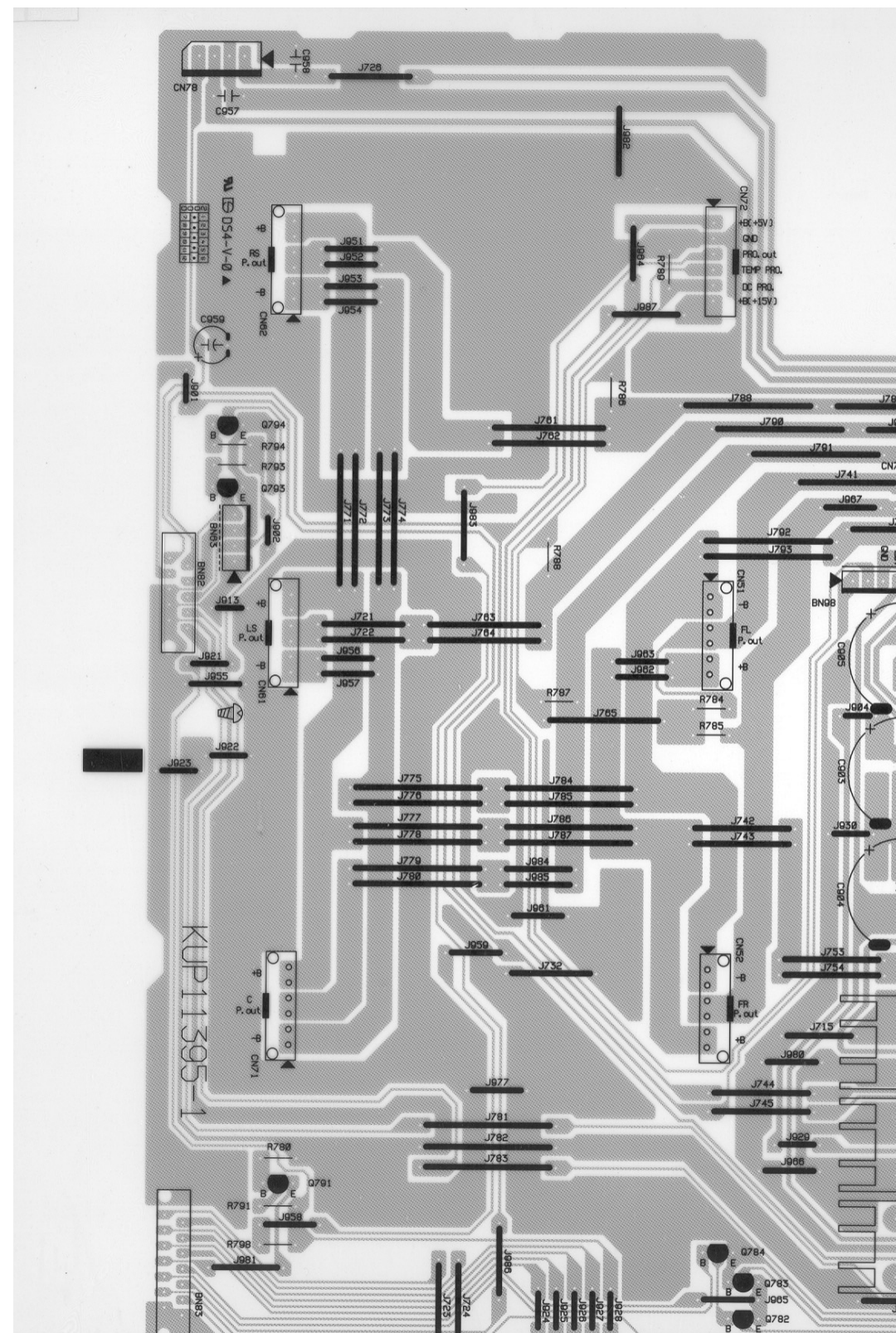
## SURROUND CIRCUIT DIAGRAM





## 4. PRINTED CIRCUIT DIAGRAMS

### MAIN PCB

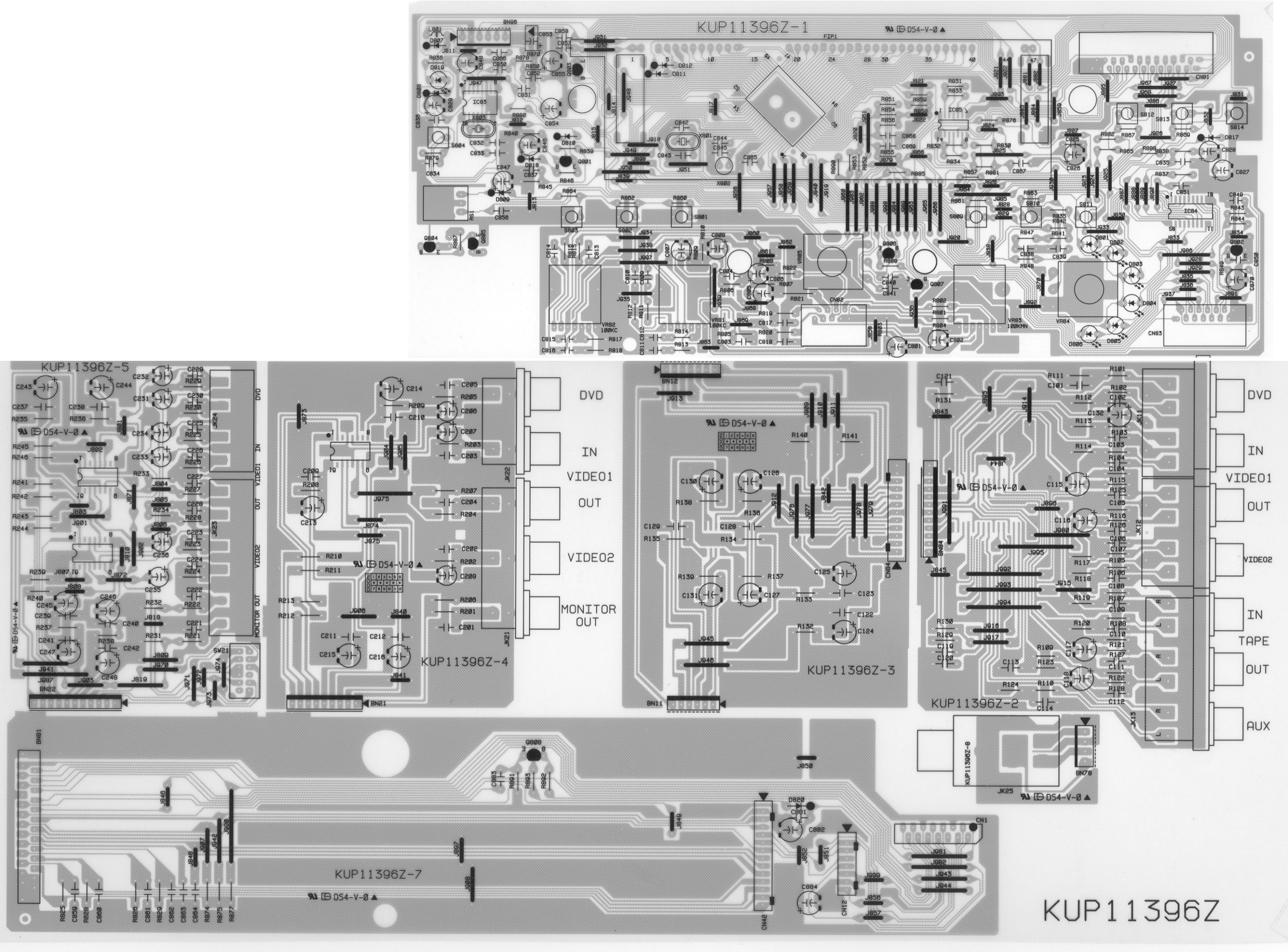


KUP11395

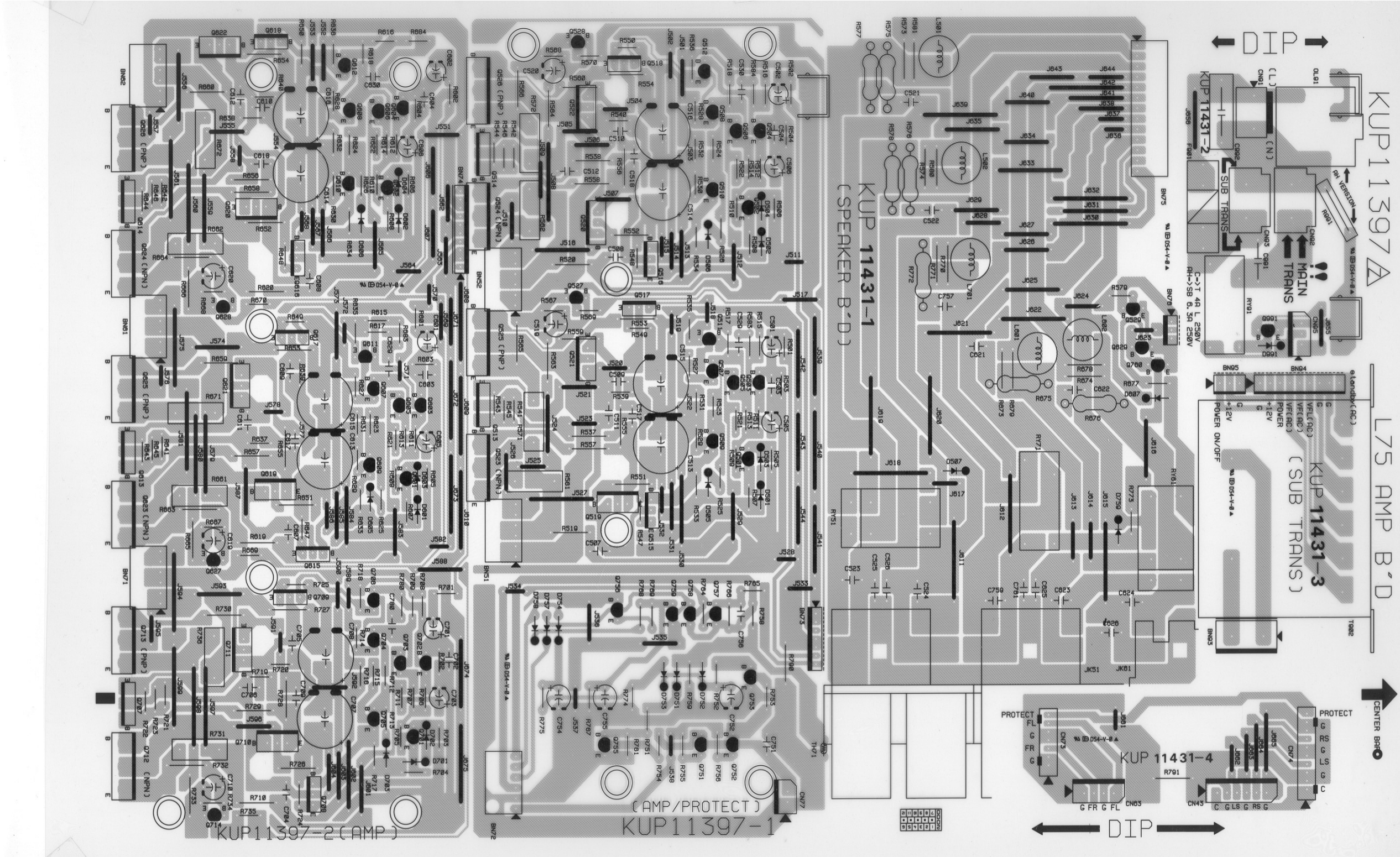




FRONT PCB

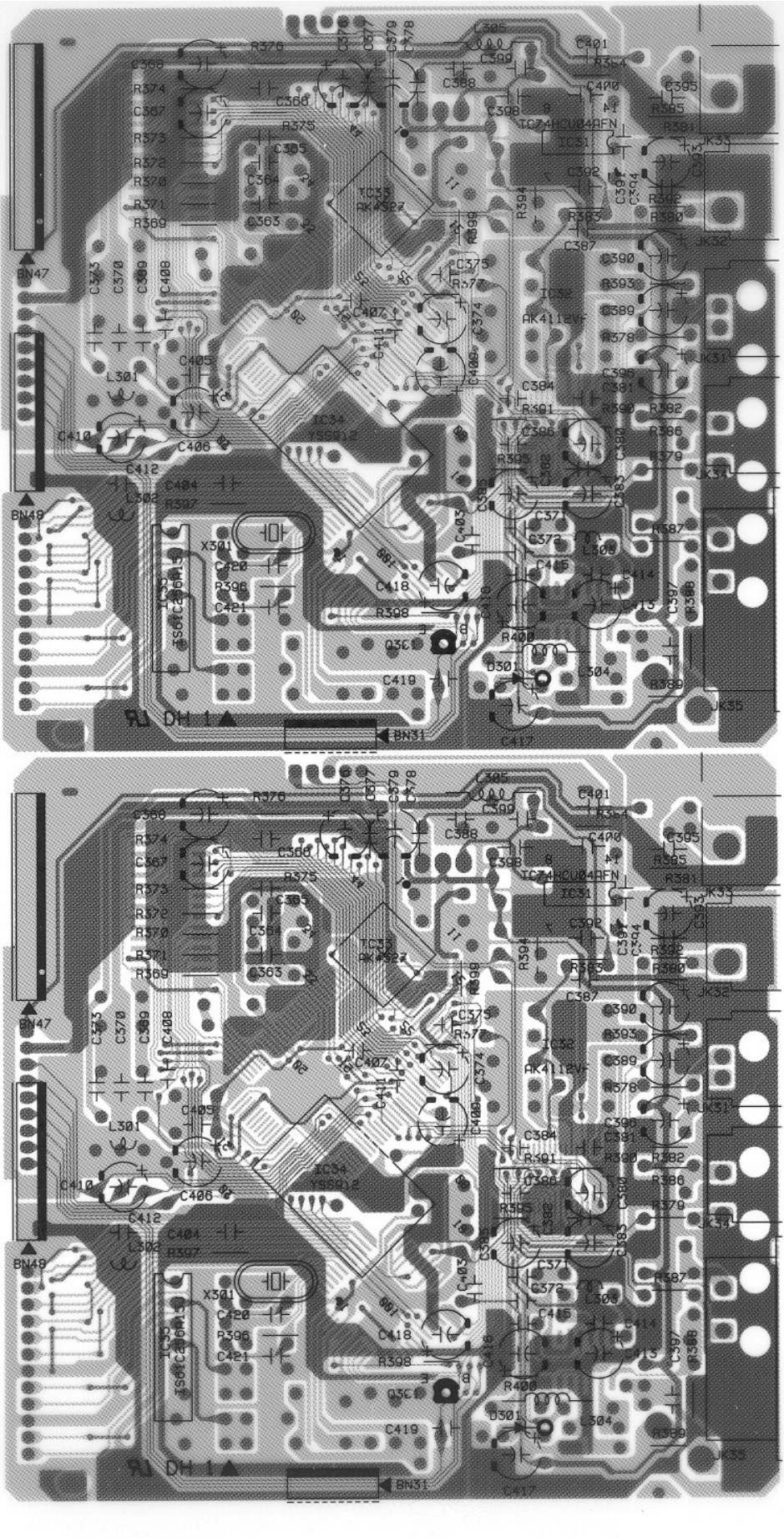
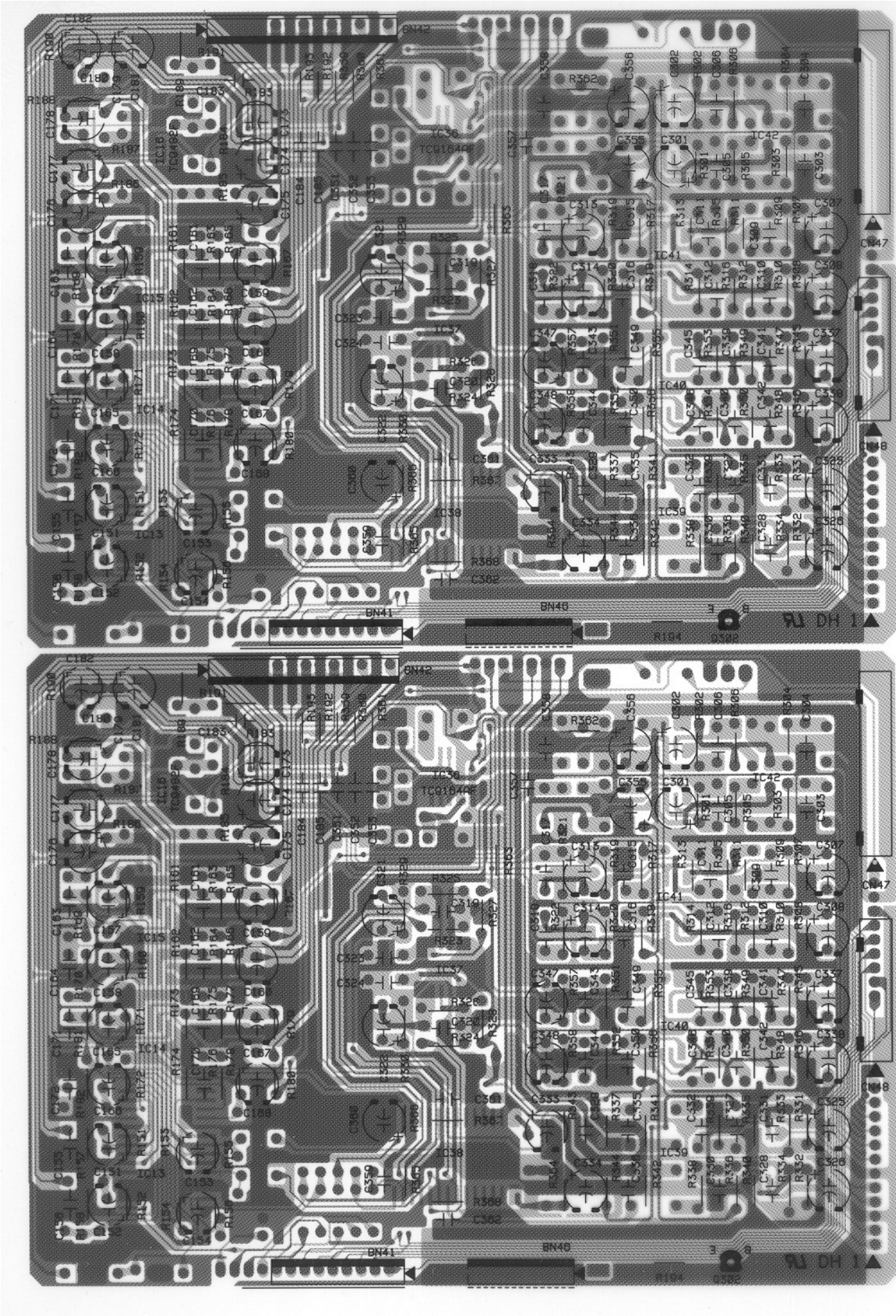








SURROUND PCB





# SECTION 3

## ELECTRICAL PARTS LIST

### ■ RESISTORS AND CAPACITORS

- Notes :
- Part numbers are indicated for most mechanical parts.  
Please use this part number for parts order.
  - The unit of resistance is OHM ( $\Omega$ )  
K=1000 ( $\Omega$ ), M=1000 ( $K\Omega$ )
  - The unit of capacitance is MICROFARAD ( $\mu F$ )  
P=10<sup>-6</sup> $\mu F$

#### ■ Numbering System of Resistor Example

KRD    25    F    J    101  
Type   Wattage   Shape   Tolerance   Value

Resistor Type	Wattage	Tolerance
KRD: Carbon	20:1/5W	F:= $\pm 1\%$
KRG: Metal Oxide	25:1/4W	J:= $\pm 5\%$
	50:1/2W	K:= $\pm 10\%$
	1:1W	
KRF: Metal Cement	2:2W	
KRQ: Fusible	3:3W	

#### ■ Numbering System of Capacitor Example

KCKR    1H    101    K    B  
Type   Voltage   Value   Tolerance   Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
KCB: Ceramic	0J:6.3V	1H:50V DC	C: $\pm 0.25\mu F$
KCC: Ceramic	1A:10V	1:125V DC	G: $\pm 2\%$
KCK: Ceramic	1C:16V	KC:400V AC	J: $\pm 5\%$
KCQI: Polyester	1E:25V	25:250V AC	K: $\pm 10\%$
KCQP: Polypropylene	1H:50V		Z: +80%, -20%
KCQS: Polystyrol	1V:35V		
KCEA: ELECT	2A:100V		
KCF: SEMI			
KCFE: FILM			

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
	<b>MAIN B`D(KUP11395-1,2,3)</b>		
	<b>PCB1 KUP11395-1</b>	<b>PCB , MAIN</b>	<b>L75</b>
C271	KCEA1HH1R0T	CAP , ELECT	1.0UF 50V
C272 , C273	KCCT1H220JC	CAP , CERAMIC	22PF 50V J
C274	KCKT1H101KB	CAP , CERAMIC	100PF 50 K
C275	KCEA1HHR47T	CAP , ELECT	0.47UF 50V
C276 , C277	KCEA1EH470T	CAP , ELECT	47UF 25V
C278	KCCT1H100DC	CAP , CERAMIC	10PF 50V D
C279	KCCT1H560JC	CAP , CERAMIC	56PF 50V J
C280	KCEA1HH1R0T	CAP , ELECT	1.0UF 50V
C281	KCKT1H181KB	CAP , CERAMIC	180PF 50V J
C282	KCQI1H682JZT	CAP , MYLAR	6800PF 50 J
C283	KCEA1HH1R0T	CAP , ELECT	1.0UF 50V
C284	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V J
C285 , C286	KCCT1H270JC	CAP , CERAMIC	27UF 50V J
C287	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C288	KCEA1CH101T	CAP , ELECT	100UF 16V
C290	KCEA1AH471T	CAP , ELECT	470UF 10V
C912 , C913	KCEA1EH101T	CAP , ELECT	100UF 25V
C914 , C915	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C916 , C917	KCKT1HH100T	CAP , ELECT	10UF 50V
C918 , C919	KCEA1CH101T	CAP , ELECT	100UF 16V
C920	KCEA1AH471T	CAP , ELECT	470UF 10V
C921 , C923	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
C957 , C958	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
C959	KCEA1HH1R0T	CAP , ELECT	1.0UF 50V
D791	KVD1N4148MT	DIODE	1N4148
D910 , D911	KVDMTZJ6.2BT	DIODE , ZENER	6.2V 1/2W
L271	KLQ220J405T	COIL , PEAKING(RADIAL)	22UH J 4X5
L272	KLQ5R6J405T	COIL , PEAKING(RADIAL)	5.6UH J 4X5
L273	KLQ101J405T	COIL , PEAKING(RADIAL)	100UH J 4X5
Q271	KVTKSC2785YT	T.R	KSC2785Y
Q272	KVTKSA1175YT	T.R	KSA1175Y
Q782 , Q783	KVTKRA107MT	T.R	KRA107M
Q784 , Q785	KVTKRC107MT	T.R	KRC107M
Q786	KVTKRA107MT	T.R	KTA107M
Q791	KVTKTA1266YT	T.R	KTC1266Y
Q793 ~ Q797	KVTKTC2874BT	T.R , MUTE	KTC2874B
Q901	KVTKSC2316YT	T.R	KSC2316Y
Q902	KVTKSA916YT	T.R	KSA916Y
R271 ~ R273	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R274	KRD20TJ682T	RES , CARBON	6.8K OHM 1/5W J
R275	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R276	KRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R277 , R278	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R279	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R280	KRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R281	KRD20TJ393T	RES , CARBON	39K OHM 1/5W J
R282	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R283	KRD20TJ682T	RES , CARBON	6.8K OHM 1/5W J
R284	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R285	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R286	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R780	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R784 ~ R788	KRD20TJ683T	RES , CARBON	68K OHM 1/5W J
R789	KRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R790	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R791	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R793 ~ R797	KRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R798	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R799	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R905 ~ R807	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R910 , R911	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R914 , R915	KRD20TJ473T	RES , CARBON	47K OHM 1/4W J
IC91	BVINJM7815FA	IC , REGULATOR	NJM7815FA
IC92	BVINJM7915FA	IC , REGULATOR	NJM7915FA
IC93	BVINJM7806FA	IC , REGULATOR	NJM7806FA
BN43	KWZL75BN43	WIRE A'SSAY	
BN63	KWZL75BN63	WIRE A'SSAY	
BN82	BJP10GB132ZK	FLEXIBLE CONNECTOR (SOCKET)	TMC-D10X-A1
BN83	BJP14GB132ZK	FLEXIBLE CONNECTOR (SOCKET)	TMC-D14X-A1
BN97	KWB3F003150UZ	WIRE A'SSAY	
BN98	KWB1C008130BM	WIRE A'SSAY	
CN11	KJP11GA98ZM	WAFER	MOLEX35336-0610
CN21	KJP09GA98ZM	WAFER	MOLEX35336-0910
CN22	KJP11GA98ZM	WAFER	MOLEX35336-1110
CN31	KJP05GA98ZM	WAFER	MOLEX35336-0519
CN41	KJP09GA98ZM	WAFER	MOLEX35336-0910
CN46	KJP07GA98ZM	WAFER	MOLEX35336-0710

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
CN51 , CN52	BJP06GA130ZK	CONNECTOR (SOCKET)	TAC-L06X-A3
CN61 , CN62	BJP06GA130ZK	CONNECTOR (SOCKET)	TAC-L06X-A3
CN71 , CN72	BJP06GA130ZK	CONNECTOR (SOCKET)	TAC-L06X-A3
CN75	BJP13GA98ZM	CONNECTOR (SOCKET)	TAC-L13X-A3
CN76	KJP03GA98ZM	WAFER	MOLEX35336-0310
CN78	KJP04GA01ZM	WAFER	MOLEX5276-04A
C901 , C902	KCET63VAH123N	CAP , ELECT	12000UF/63V
C903 , C904	KCEA1VAHS222E	CAP , ELECT	2200UF/35V
C905	KCEA1CH332E	CAP , ELECT	3300UF 16V
C922	KCEA1CH222E	CAP , ELECT	2200UF 16V
IC27	BVIAN2024V	I.C , OSD	LC74763-9730
RY79	BSL4A004ZU	RELAY	OSD-SS-212DM3
R908 , R909	KRG2ANJ470H	RES , METAL OXIDE FILM	47 OHM 2W J
R912	KRG1ANJ470H	RES , METAL OXIDE FILM	47 OHM 1W J
S799	KST1A010Z	SW , TACT	
X271	KOX17744D220F	CRYSTAL	17.744MHz HC-49/U
<b>PCB2 KUP11395-2</b>		<b>PCB , TRANS</b>	
C906 , C907	KCFE1J473JBT	CAP , FILM	0.047UF 63V J
C924	KCFE1J124JBT	CAP , FILM	0.12UF 63V J
F903 , F904	KBA2C8000TLU	FUSE	51S 8A
R913	KRD25TJ103T	RES , CARBON	10K OHM 1/4W J
D901	BVDGBJ1504	DIODE , BRIDGE	GBT1504
<b>PCB3 KUP11395-3</b>		<b>PCB , PSU</b>	
C908 ~ C911	KCFEJ124JBT	CAP , FILM	0.12UF 63VJ
C952	KCEA1HH100T	CAP , FILM	10UF 50V
C953	KCEA1CH101T	CAP , FILM	100UF 16V
C954	KCEA1HH470T	CAP , FILM	47UF 50V
C955	KCEA1HH4R7T	CAP , FILM	4.7UF 50V
C956	KCEA1HH100T	CAP , FILM	10UF 50V
D902 ~ D909	KVD1N4003ST	DIODE	1N4003
D951	KVD1N4003ST	DIODE	1N4003
D952	KVDMTZJ6.2BT	DIODE , ZENER	6.2V 1/2W
D953	KVD1N4003ST	DIODE	1N4003
D954	KVDMTZJ33BT	DIODE , ZENER	33V 1/2W
D956	KVDMTZJ6.2BT	DIODE , ZENER	6.2V 1/2W
Q951	KVTKSC2316YT	T.R	KSC2316Y
Q952	KVTKSA1175YT	T.R	KSA1175Y
R951	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R952 , R953	KRD20TJ560T	RES , CARBON	56 OHM 1/4W J
R954	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
CN94	KJP09GA01ZM	WAFER	MOLEX 5267-09A
CN96	KJP06GA01ZM	WAFER	MOLEX 5267-06A
CN97	KJP03GA90ZM	WAFER	MOLEX 35313-0310
CN98	KJP08GB03ZM	WAFER	MOLEX 5268-08A
R901 ~ R904	KRQ1CJR47	RES , FUSE	0.47 OHM 1W J
<b>FRONT B'D</b>		<b>(KUP11396- 1,2,3,4,5,7,8)</b>	
<b>PCB1 KUP11396-1</b>		<b>PCB , U-COM</b>	
C801 , C802	KCEA1VKS100T	CAP , ELECT	10UF 35V
C803 , C804	KCBS1H101KBT	CAP , CERAMIC	100PF 50V K
C805 ~ C808	KCEA1VKS100T	CAP , ELECT	10UF 35V
C809 , C810	KCFE1J472JBT	CAP , FILM	4700PF 63V J
C811 , C812	KCFE1J223JBT	CAP , FILM	0.022UF 63V J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
C813 , C814	KCFE1J123JBT	CAP , FILM	0.012UF 63V J
C815 , C816	KCFE1J683JBT	CAP , FILM	0.068UF 63V J
C817 , C818	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C825	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C826	KCEA1CKS101T	CAP , ELECT	100UF 16V
C827 , C828	KCEA1CKS470T	CAP , ELECT	47UF 16V
C829	KCEA1HKS2R2T	CAP , ELECT	2.2UF 50V
C830	KCKT1H101KB	CAP , CERAMIC	100UF 16V
C831	KCKT1H102KB	CAP , CERAMIC	1000PF 50V K
C832 , C833	KCBS1H270JT	CAP , CERAMIC	27PF 50V J
C834	KCKT1H102KB	CAP , CERAMIC	1000PF 50V K
C835	KCBS1H181KBT	CAP , CERAMIC	180PF 50V K
C836	KCBS223ZFT	CAP , CERAMIC	0.022UF 50V Z
C837	KCBS1H473ZFT	CAP , CERAMIC	0.047UF 50V Z
C838 ~ C841	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C842 ~ C845	KCBS1H180JCT	CAP , CERAMIC	18PF 50V K
C846 , C857	KCEA1CKS470T	CAP , ELECT	47UF 16V
C848	KCEA1HKS2R2T	CAP , ELECT	2.2UF 50V
C849	KCCT1H220JC	CAP , CERAMIC	22PF50V J
C850	KCBS1H821KBT	CAP , CERAMIC	820PF 50V K
C851	KCBS1H181KBT	CAP , CERAMIC	180PF 50V K
C852	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C854	KCEAOJH102T	CAP , ELECT	1000UF 6.3V
C855	KCEA1HKS1R0T	CAP , ELECT	1UF 50V
C856	KCBS1H821KBT	CAP , CERAMIC	820PF 50V K
C857 , C858	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C865	KCBS1H221KBT	CAP , CERAMIC	220PF 50V K
C866	KCBS1H561KBT	CAP , CERAMIC	560PF 50V K
C867	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C868 , C869	KCBS1H181KBT	CAP , CERAMIC	180PF 50V K
C870	KCEA1VKS100T	CAP , ELECT	10UF 35V
D801 ~ D806	BVDSEL2E10CFT	L.E.D , BLUE	SEL2E10C-005
D807 ~ D810	KVD1N4148MT	DIODE	1N4148
D817 , D818	KVD1N4148MT	DIODE	1N4148
D819	BVDSEL2E10CFT	L.E.D , BLUE	SEL2E10C-005
IC81	BVITMP87PS71F	I.C , O.T.P	TMP87PS71F
IC82	BVIOPA2134UA	I.C , OP AMP	ODA2134UA
IC83	BVISAA6579TV1	I.C , RDS FILTER	SAA6579T/V1
IC84	BVINJU3713G	I.C	NJU3713G
IC85	BVIMC74HC14D	I.C , INVERTOR	MC74HC14D
L801	KLQ02C100KT	COIL , AXAIL	10UH , K
Q801	KVTKSB811YT	T.R	KSB811Y
Q802	KVTKRC107MT	T.R	KRC107M
Q803	KVTKRA107MT	T.R	KRA107M
Q806	KVTKRA107MT	T.R	KRA107M
Q807	KVTKRC107MT	T.R	KRC107M
R801 , R802	KRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R803 , R804	KRD20TJ184T	RES , CARBON	180K OHM 1/5W J
R805 , R806	KRD20TJ474T	RES , CARBON	470K OHM 1/5W J
R807 ~ R810	KRD20TJ563T	RES , CARBON	56K OHM 1/5W J
R811 , R812	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R813 , R814	KRD20TJ821T	RES , CARBON	820K OHM 1/5W J
R815 , R816	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R817 , R818	KRD20TJ392T	RES , CARBON	3.9K OHM 1/5W J
R819 , R820	KRD20TJ121T	RES , CARBON	120 OHM 1/5W J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R821	KRD20TJ102T	RES , CARBON	1K OHM 1/4W J
R822	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R830	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R831 , R832	JRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R833 , R834	JRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R835 , R836	KRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R837	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R838	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R839 ~ R844	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R845	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R846	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R847 ~ R849	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R850	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R851 , R852	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R853 ~ R857	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R858 , R859	KRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R860 , R861	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R862 , R863	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R864 , R865	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R867	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R869	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R870	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R878	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R879 , R880	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R881	KRD20TJ2R2T	RES , CARBON	2.2K OHM 1/5W J
R882	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R885	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R888 , R889	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R890	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
S801 ~ S804	KST1A012ZT	SW , TACT	SKHV10910G
S809 ~ S814	KST1A012ZT	SW , TACT	SKHV10910G
BN96	KWB1C006230BM	WIRE ASS'Y	
CN81	BJP26GA133ZK	FLEXIBLE CONNECTOR(PLUG)	TMC-D26P-A1
CN82	BJP10GA133ZK	FLEXIBLE CONNECTOR(PLUG)	TMC-D10P-A1
CN83	BJP14GA133ZK	FLEXIBLE CONNECTOR(PLUG)	TMC-D14P-A1
C853 , C885	BCESOHD104	CAP , GOLD	EECSOHD104V
FIP1	KFLSVA10MS11	FIP1	SVA-10MS11
JW71	KWEH201080PP	WIRE	
RS01	KRVHIM602H32	SENSOR , REMOCON	HIM602H32
VR81	KVV2X07C104Z	RES , TONE	RK14K128030214C
VR82	KVV2X07C104Z	RES , TONE	RK14K128030214C
VR83	KVV2X05C104Z	RES , VARIABLE	RK14K128030214Y
VR84	KSR2A015Z	ENCODER	EC16B12S00B2
VR85	KSR2A018Z	ENCODER	EC16B24T03B2ZZZ
X801	KOX08000E160C	CRYSTAL	8MHz HC-49/S
X802	BOX00032A120C	CRYSTAL	32.768KHZ DT-38
X803	KOX04332E200C	CRYSTAL	4.332MHz HC-49/S
<b>PCB2 KUP11396-2</b>		<b>PCB , AUDIO INPUT</b>	
C101 ~ C114	KCBS1H101KBT	CAP , CERAMIC	100PF 50V K
C115 ~ C118	KCEA1HKS4R7T	CAP , ELECT	4.7UF 50V
C119 ~ C121	KCBS1H181KBT	CAP , CERAMIC	180PF 50V K
C132	KCEA1CKS220T	CAP , ELECT	22UF 50V
IC11	BVTC9163AF	I.C , FUNCTION	TC9163AF
R101 ~ R110	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R111 ~ R124	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R125 ~ R128	KRD20TJ471T	RES , CARBON	470 OHM1/5W J
R129 ~ R131	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
BN84	KJP12GB99ZM	CONNECTOR	MOLEX 35237-1210
JK11 , JK12	KJJ4P039Z	JACK , BOARD	JK0400451G
JK13	KJJ4R011Z	JACK , IN/OUT(R/W,G)	JK0600921G
<b>PCB3 KUP1396-3</b>		<b>PCB , AUDIO BUFFER</b>	
C122 , C123	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C124 , C125	KCEA1VH101T	CAP , ELECT	100UF 35V
C126 , C127	KCEA1HKS4R7T	CAP , ELECT	4.7UF 50V
C128 , C129	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C130 , C131	KCEA1HKS4R7T	CAP , ELECT	4.7UF 50V
IC12	BVIOPA2134UA	I.C , OP AMP	OPA2134UA
R132 ~ R135	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R136 ~ R141	KRD20TJ563T	RES , CARBON	56K OHM 1/5W J
BN11	KJP06GB99ZM	RES , CARBON	MOLEX 35237-0610
BN12	KJP07GB99ZM	CONNECTOR , HOUSING	MOLEX 35237-0710
CN84	KJP12GA98ZM	WAFER	MOLEX 35336-1210
<b>PCB4 KUP11396-4</b>		<b>PCB , VIDEO INPUT</b>	
C201	KCCT1H470JC	CAP , CERAMIC	47PF 50V J
C202 , C203	KCCT1H220JC	CAP , CERAMIC	22PF 50V J
C204	KCCT1H470JC	CAP , CERAMIC	47PF 50V J
C205	KCCT1H220JC	CAP , CERAMIC	22PF 50V J
C206 ~ C208	KCEA1CKS100T	CAP , ELECT	10UF 16V
C209 ~ C212	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C213 ~ C216	KCEA1AKS101T	CAP , ELECT	100UF 10V
IC23	BVINJM2296M	I.C , VIDEO SW	NJM2296M
R201 ~ R205	KRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R206 , R207	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R208 , R209	KRD20TJ4R7T	RES , CARBON	4.7K OHM 1/5W J
R210 ~ R213	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
BN21	KJP09GB99ZM	CONNECTOR	MOLEX 35237-0910
JK21	KJJ4S003Z	TERMINAL , INPUT	IJBB3-N03-Z
JK22	KJJ4N007Z	TERMINAL , INPUT	IJBB2-N07
<b>PCB5 KUP11396-5</b>		<b>PCB , SVIDEO INPUT</b>	
C221 , C222	KCCT1H470JC	RES , CERAMIC	47PF 50V J
C223 , C226	KCCT1H220JC	RES , CERAMIC	22PF 50V J
C227 , C228	KCCT1H470JC	RES , CERAMIC	47PF 50V J
C229 , C230	KCCT1H220JC	RES , CERAMIC	22PF 50V J
C231 ~ C236	KCEA1CKS100T	CAP , ELECT	10UF 16V
C237 ~ C242	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C243 ~ C248	KCEA1AKS101T	CAP , ELECT	100UF 10V
IC21 , IC22	BVINJM2296M	I.C , VIDEO SW	NJM2296M
R221 ~ R230	KRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R231 ~ R234	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R235 ~ R238	KRD20TJ4R7T	RES , CARBON	4.7K OHM 1/5W J
R239 ~ R246	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
BN22	KJP11GB99ZM	KJP11GB99ZM	MOLEX 35237-1110
JK23	KJJ9S001Z	KJJ9S001Z	C50360292N
JK24	KJJ9N004Z	KJJ9N001Z	C50360282N
SW21	KSS2D004Z	KSS2D004Z	JSS4208A



LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
	<b>PCB7 KUP11396-7</b>	<b>PCB , GUIDE</b>	
C859 ~ C864	KCBS1H220JC	CAP , CERAMIC	22PF 50V J
C881	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C882	KCEA1AKS101T	CAP , ELECT	100UF 10V
C883	KCKT1H182KB	CAP , CERAMIC	1800PF 50V K
C884	KCEA1VH100T	CAP , ELECT	10UF 35V
D820	KVD1N4148MT	DIODE	1N4148
Q808	KVTKC3198YT	T.R	KTC3138Y
R825 , R826	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R828 , R829	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R874 ~ R876	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R877	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R891	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R892	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R893	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
BN81	BJP26GA132ZK	FLEXIBLE CONNECTOR(SOCKET)	TMC-D26X-A1
CN01	KJP15GB116ZG	WAFER , CARDCABLE	GF120-15S-LS
BN01	KWC1C4A15B060B	CARDCABLE	HTS-064-05NG
CN12	KJP07GA98ZM	WAFER	MOLEX 35336-0710
CN42	KJP13GA98ZM	WAFER	MOLEX 35336-0310
	<b>PCB8 KUP11396-8</b>	<b>PCB , HEADPHONE</b>	
BN78	KWBIC004070BM	WIRE ASS'Y	
JK25	BJJ2E020Z	JACK	
	<b>AMP B'D (KUP11397-1,2)</b>		
	<b>PCB1 KUP11397-1</b>	<b>PCB , FRONT AMP</b>	
C501 , C502	KCEA1VH100T	CAP , ELECT	10UF 35V
C503 , C504	KCKT1H471KB	CAP , CERAMIC	470PF 50V K
C505 , C506	KCEA1CH221T	CAP , ELECT	220UF 16V
C507 , C508	KCCT1H150JC	CAP , CERAMIC	15PF 50V J
C509 , C510	KCKK1H181KB	CAP , CERAMIC	180PF 50V K
C511 , C512	KCQI1H223JZT	CAP , MYLAR	0.022UF 50V J
C517 , C518	KCQI1H223JZT	CAP , MYLAR	0.022UF 50V J
C519 , C520	KCEA1HH100T	CAP , ELECT	10UF 50V
C529 , C530	KCKT1H331KB	CAP , CERAMIC	330PF 50V K
C751	KCQI1H104JZT	CAP , MYLAR	0.1UF 50V J
C752 , C754	KCEA1HH100T	CAP , ELECT	10UF 50V
C755	KCEA1CH101T	CAP , ELECT	100UF 16V
C756	KCQI1H563JZF	CAP , ELECT	0.056UF 50V J
C780	KCKT1H331KB	CAP , CERAMIC	330PF50V K
D501 ~ D506	KVD1N4148MT	DIODE	1N4148
D751 ~ D754	KVD1N4148MT	DIODE	1N4148
D757 , D758	KVD1N4148MT	DIODE	1N4148
Q501 ~ Q506	KVTKTA1268GRT	T.R	KTA1268GR
Q507 , Q508	KVTKTC3200GRT	T.R	KTC3200GR
Q509 , Q510	KVTKTA1268GRT	T.R	KTA1268GR
Q511 , Q512	KVTKTC3200GRT	T.R	KTC3200GR
Q527 , Q528	KVTKSC2785YT	T.R	KSC2785Y
Q751 , Q752	KVTKTA1271YT	T.R	KSA1271Y
Q753	KVTKSC2785YT	T.R	KSC2785Y
Q755 , Q756	KVTKSC2785YT	T.R	KSC2785Y
Q757	KVTKTA1271YT	T.R	KTA1268GR
Q758	KVTKRA107MT	T.R	KRA107M
Q759	KVTKSC2785YT	T.R	KSC2785Y
R501 , R502	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R503 ~ R506	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R507 , R508	KRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R509 , R510	KRD20TJ560T	RES , CARBON	56 OHM 1/5W J
R511 ~ R514	KRD20TJ150T	RES , CARBON	15 OHM 1/5W J
R515 ~ R518	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R519 , R520	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R521 , R522	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R523 ~ R528	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R529 ~ R532	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R533 ~ R536	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R537 , R538	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R539 , R540	KRD20TJ101T	RES , CARBON	22K OHM 1/5W J
R541 , R542	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R543 , R544	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R545 , R546	KRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R547 ~ R550	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R551 ~ R556	KRD20TJ820T	RES , CARBON	82 OHM 1/5W J
R557 ~ R560	KRD20TJ2R2T	RES , CARBON	2.2 OHM 1/5W J
R563 ~ R566	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R567 , R568	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R569 , R570	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R583 , R584	KRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R751 , R752	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R743 , R754	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R755	KRD20TJ100T	RES , CARBON	10K OHM 1/5W J
R756	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R758	KRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R759	KRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R761	KRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R764	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R765	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R766	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R767	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R768	KRD20TJ473	RES , CARBON	47K OHM 1/5W J
R769	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R774	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R775	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R780	KRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R790	KRD20T1R0T	RES , CARBON	1 OHM 1/5W J
BN51 , BN52	BJP06GB99ZM	CONNECTOR (PLUG)	TAC-L06P-B3
BN72	BJP06GB99ZM	CONNECTOR (PLUG)	TAC-L06P-B3
BN73	KJP07GB99ZM	CONNECTOR , HOUSING	MOLEX 35237-0710
CN77	KJP02GB03ZM	WAFER	MOLEX 5268-02
C513 ~ C516	KCEA1JAHS471E	CAP , ELECT	AHS 470/63V
Q515 , Q516	BVT2SA13600	T.R	2SA13600
Q517 , Q518	BVT2SC34230	T.R	2SC34230
Q519 , Q520	KVT2SD1763AE	T.R	2SD1763AE
Q521 , Q522	KVT2SB1186AE	T.R	2SB1186AE
R561 , R562	KRF5EKR22H	RES , CEMENT	0.22 OHM 5W K
R571 , R572	KRF5EKR22H	RES , CEMENT	0.22 OHM 5W K
	<b>PCB2 KUP11397-2</b>	<b>PCB , SURROUND AMP</b>	
C601 , C602	KCEA1VH100T	CAP , ELECT	10UF 35V
C603 , C604	KCKT1H471KB	CAP , CERAMIC	470PF 50V K
C605 , C606	KCEA1CH221T	CAP , ELECT	220UF 16V

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
C607 , C608	KCCT1H150JC	CAP , CERAMIC	15PF 50V J
C609 , C610	KCKT1H181KB	CAP , CERAMIC	180PF 50V K
C611 , C612	KCQI1H223JZT	CAP , MYLAR	0.022UF 50V J
C617 , C618	KCQI1H223JZT	CAP , MYLAR	0.022UF 50V J
C619 , C620	KCEA1HH100T	CAP , ELECT	10UF 50V
C629 , C630	KCKT1H331KB	CAP , CERAMIC	330PF 50V K
C701	KCEA1VH100T	CAP , ELECT	10UF 50V
C702	KCKT1H471KB	CAP , CERAMIC	470PF 50V K
C703	KCEA1CH221T	CAP , ELECT	220UF 16V
C704	KCCT1H150JC	CAP , CERAMIC	15PF 50V J
C705	KCKT1H181KB	CAP , CERAMIC	180PF 50V K
C706 , C709	KCQI1H223JZT	CAP , MYLAR	0.022UF 50V J
C710	KCEA1HH100T	CAP , ELECT	10UF 50V
D601 ~ D606	KVD1N4148MT	DIODE	1N4148
D701 ~ D703	KVD1N4148MT	DIODE	1N4148
Q601 ~ Q606	KVTKTA1268GRT	T.R	KTA1268GR
Q607 , Q608	KVTKTA3200GRT	T.R	KTC3200GR
Q609 , Q610	KVTKTA1268GRT	T.R	KTA1268GR
Q611 , Q612	KVTKTA3200GRT	T.R	KTC3200GR
Q627 , Q628	KVTKSC2785YT	T.R	KSC2785Y
Q701 ~ Q703	KVTKTA1268GRT	T.R	KTA1268GR
Q704	KVTKTC3200GRT	T.R	KTC3200GR
Q705	KVTKTA1268GRT	T.R	KTA1268GR
Q706	KVTKTC3200GRT	T.R	KTC3200GR
Q714	KVTKSC2785YT	T.R	KSC2785Y
R601 , R602	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R603 ~ R606	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R607 , R608	KRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R609 , R610	KRD20TJ560T	RES , CARBON	56 OHM 1/5W J
R611 ~ R614	KRD20TJ150T	RES , CARBON	15 OHM 1/5W J
R615 ~ R618	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R619 , R620	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R621 , R622	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R623 ~ R628	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R629 ~ R632	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R633 ~ R636	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R637 ~ R640	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R641 , R642	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R643 , R644	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R645 , R646	KRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R647 ~ R650	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R651 ~ R656	KRD20TJ820T	RES , CARBON	82 OHM 1/5W J
R657 ~ R660	KRD20TJ2R2T	RES , CARBON	2.2K OHM 1/4W J
R663 ~ R666	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R667 , R668	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R669 , R670	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R683 ~ R684	KRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R701	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R702 , R703	KRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R704	KRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R705	KRD20TJ560T	RES , CARBON	56 OHM 1/5W J
R706 , R707	KRD20TJ150T	RES , CARBON	15 OHM 1/5W J
R708 , R709	KRD20TJ152T	RES , CARBON	1.5 OHM 1/5W J
R710	KRD25TJ473T	RES , CARBON	47K OHM 1/5W J
R711	KRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R712 ~ R714	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R715 , R716	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R717 , R718	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R719 , R820	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R721	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R722	KRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R723	KRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R724 , R725	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R726 ~ R728	KRD20TJ820T	RES , CARBON	82 OHM 1/5W J
R729 , R730	KRD20TJ2R2T	RES , CARBON	2.2 OHM 1/4W J
R732 , R733	KRD20TJ102T	RES , CARBON	1K OHM 1/4W J
R734	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R735	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
BN61 , BN62	BJP06GB131ZK	CONNECTOR (PLUG)	TAC-L60P-B3
BN71	BJP06GB131ZK	CONNECTOR (PLUG)	TAC-L60P-B3
BN74	KJP10GB99ZM	WAFER	MOLEX 35237-1010
C613 ~ C616	KCEA1JAHS471E	CAP , ELECT	AHS 470UF 63V
C707 , C708	KCEA1JAHS471E	CAP , ELECT	AHS 470UF 63V
Q615 , Q616	BVT2SA13600	T.R	2SA13600
Q617 , Q618	BVT2SC34230	T.R	2SC34230
Q619 , Q620	KVT2SD1763AE	T.R	2SD1763AE
Q621 , Q622	KVT2SB1186AE	T.R	2SB1186AE
Q708	BVT2SA13600	T.R	2SA13600
Q709	BVT2SC34230	T.R	2SC34230
Q710	KVT2SD1763AE	T.R	2SD1763AE
Q711	KVT2SB1186AE	T.R	2SB1186AE
R661 , R662	KRF5EKR22H	RES , CEMENT	0.22 OHM 5W K
R671 , R672	KRF5EKR22H	RES , CEMENT	0.22 OHM 5W K
R731 , R736	KRF5EKR22H	RES , CEMENT	0.22 OHM 5W K
	<b>HEAT SINK ASS'Y (KMYL75)</b>		
	<b>ASS'Y 1 KDD1A013WA</b>	<b>FAN ASS'Y</b>	
	BDMMDN4RB4MRC	MOTOR	BDMMDN4RB4MRC
	KDD1A013	FAN	A3-96-2231
	KWBIC002100BI	WIRE ASS'Y	
	<b>ASS'Y 2 KMY1A165ZA</b>	<b>HEAT SINK ASS'Y(F)</b>	
	<b>KMY1A165</b>	<b>SINK , HEAT(F)</b>	
Q613 , Q614	KVT2SC4147V	T.R , (BIAS)	2SC4137V
Q623 , Q624	KVT2SC4468-OKM	T.R , POWER	2SC4468
Q625 , Q626	KVT2SA1695-OKM	T.R , POWER	2SA1695
Q707	KVT2SC4137V	T.R , (BIAS)	2SC4137V
Q712	BVT2SC4468-OKM	T.R , POWER	2SC4468
Q713	BVT2SA1695-OKM	T.R , POWER	2SA1695
	<b>ASS'Y 3 KMY1A166ZA</b>	<b>HEAT SINK ASS'Y(R)</b>	
	<b>KMY1A166</b>	<b>SINK , HEAT(R)</b>	
Q513 , Q514	KVT2SC4137V	T.R , (BIAS)	2SC4137V
Q523 , Q524	BVT2SC4468-OKM	T.R , POWER	2SC4468
Q525 , Q526	BVT2SA1695-OKM	T.R , POWER	2SA1695
TH71	KRTP43T7D330B	THERMAL SENSOR , POSISTOR	P43T7D330BW1.5
	<b>POWER B'D</b>	<b>( KUP11431-1,2,3,4)</b>	
	<b>PCB1 KUP11431-1</b>	<b>PCB , SPEAKER</b>	
C521 , C522	KCQI1H473JZT	CAP , MYLAR	0.047UF 50V J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
C523 ~ C526	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
C621 , C622	KCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C623 ~ C626	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
C757	KCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C759 , C761	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
D507	KVD1N4148MT	DIODE	1N4148
D607	KVD1N4148MT	DIODE	1N4148
D759	KVD1N4148MT	DIODE	1N4148
Q529	KVTKRC107MT	T.R	KRC107M
Q629	KVTKRC107MT	T.R	KRC107M
C760	KVTKRC107MT	T.R	KRC107M
R573 , R574	KRD25TJ470T	RES , CARBON	47 OHM 1/4W J
R579	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R580 , R581	KRD25TJ470T	RES , CARBON	47 OHM 1/4W J
R673 , R674	KRD25TJ470T	RES , CARBON	47 OHM 1/4W J
R677	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R678 , R679	KRD25TJ470T	RES , CARBON	47 OHM 1/4W J
R770 , R771	KRD25TJ470T	RES , CARBON	47 OHM 1/4W J
R773	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
BN75	BJP13GB131ZK	CONNECTOR(PLUG)	TAC-L13P-B3
BN76	KJP03GB99ZM	CONNECTOR	MOLEX 35237-0310
JK51	KJJ5Q007Z	TERMINAL , SP(RRRR/BBBB)	SH0810361P
JK61	KJJ5N005Z	TERMINAL , SP(R/B)	SH0210210381P
L501 , L502	KLEYKOR5KA	COIL , SPEAKER	0.5UH K
L601 , L602	KLEYKOR5KA	COIL , SPEAKER	0.5UH K
L701	KLEYKOR5KA	COIL , SPEAKER	0.5UH K
RY51 , RY61	BSL4A010ZU	RELAY	OSA-SS-212DM5
RY71	BSL1A008ZE	RELAY	SDT-S-112DMR
R575 , R576	KRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R577 , R578	KRG1ANJ331H	RES , METAL OXIDE FILM	330 OHM 1W J
R675 , R676	KRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R772	KRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
	<b>PCB2 KUP11431-2</b>	<b>PCB , AC OUTLET</b>	
D991	KVD1N4148MT	DIODE	1N4148
F901	KBA2C4000TLE	FUSE	50T 4A (C)
	KBA2C6300TLE	FUSE	51T 6.3A (AH)
Q991	KVTKRC107MT	T.R	KRC107M
CN91	KJP02KA060ZY	WAFER	7.92MM (YUNHO)
CN92 , CN93	KJP02GA98ZM	WAFER	MOLEX 35328-02
CN95	KJP03GA01ZM	WAFER	MOLEX 5267-03A
C991	BCKWKC472MF	CAP , CERAMIC	DE7150-610F472M
C992	BCQE2E104KDE	CAP , LINE ACROSS	0.1UF 250V KD
RY91	BSL1A008ZE	RELAY	SDT-S-112DMR
	<b>PCB3 KUP11431-3</b>	<b>PCB , SUB TRANS</b>	
BN93	KWB4DA32150UZ	WIRE ASS'Y	
BN94	KWB1D009230BM	WIRE ASS'Y	
BN95	KWB1C003150BM	WIRE ASS'Y	
T902	KLT5L052ZE	TRANS , POWER	C VERSION
	KLT5L052ZU	TRANS , POWER	AH VERSION
	<b>PCB4 KUP11431-4</b>	<b>PCB , CONNECTOR</b>	
R791	KRD25TJ1R0T	RES , CARBON	1 OHM 1/4W J
CN43	KJP06GB03ZM	WAFER	MOLEX 5267-06A

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
CN63	KJP04GB03ZM	WAFER	MOLEX 5267-04A
CN73	KJP07GA98ZM	WAFER	MOLEX 35336-0710
CN74	KJP04GA98ZM	WAFER	MOLEX 35336-1010
	<b>SURR B'D (KUP11398-1,2)</b>		
	<b>PCB1 KUP11398-1</b>	<b>PCB , SURROUND-1</b>	
C363 , C364	KCQI1H222JZT	CAP , MYLAR	2200PF 50V J
C365 , C366	KCFT1H104ZF	CAP , SEMI	0.1UF 50V Z
C367 , C368	KCEA1VH100T	CAP , ELECT	10UF 35V
C369	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C370 , C371	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C372	KCBS1H270JT	CAP , CERAMIC	27PF 50V J
C373	KCCT1H270JC	CAP , CERAMIC	27PF 50V J
C374	KCEA1VH100T	CAP , ELECT	100UF 16V
C375	KCKT1H473ZF	CAP , CERAMIC	0.047UF 50V Z
C376	KCEA1CH101T	CAP , ELECT	100UF 16V
C377	KCBS1H473ZFT	CAP , CERAMIC	0.047UF 50V Z
C378	KCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C379	KCEA1CH101T	CAP , ELECT	100UF 16V
C380	KCEA1CKS100T	CAP , ELECT	10UF 16V
C381	KCFT1H104ZF	CAP , SEMI	0.1UF 50V Z
C382	KCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C383	KCEA1CH101T	CAP , ELECT	100UF 16V
C384	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C385	KCEA1CKS100T	CAP , ELECT	10UF 16V
C386	KCKT473ZF	CAP , CERAMIC	0.047UF 50V Z
C387	KCC1H180JC	CAP , CERAMIC	18PF 50V J
C388	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C389 , C390	KCEA1CH101T	CAP , ELECT	100PF 16V
C391	KCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C392	KCBS1H180JCT	CAP , CERAMIC	18PF 50V J
C393	KCEA1CH101T	CAP , ELECT	100UF 16V
C394	KCBS1H473ZFT	CAP , CERAMIC	0.047UF 50V Z
C395	KCBS1H181KBT	CAP , CERAMIC	18PF 50V J
C396	KCEA1CH101T	CAP , ELECT	100UF 16V
C397	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C398	KCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C399 , C400	KCFT1H104ZF	CAP , SEMI	0.1UF 50V Z
C401	KCBS1H180JCT	CAP , CERAMIC	18PF 50V J
C403	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C404	KCKT1H471KB	CAP , CERAMIC	470PF 50V Z
C405	KCFT1H104ZF	CAP , SEMI	0.1UF 50V Z
C406	KCEA1CH101T	CAP , ELECT	100UF 16V
C407	KCFT1H104ZF	CAP , SEMI	0.1UF 50V Z
C408	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C409	KCEA1CH101T	CAP , ELECT	100UF 16V
C410	KCEA1AH471T	CAP , ELECT	470UF 10V
C411	KCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
D301	KVDMTZJ4.7BT	DIODE , ZENER	4.7V 1/2W
1C31	BVITC74HCOU04AFN	I.C , INVERTER	
IC32	BVIAK4112VF	I.C , DIR	AK4112A-VF-E2
IC33	BVIAK4527VQ	I.C , CODEC	AK4527-VQ
IC34	BVIYSS912	I.C , AC3/DTS DECODER	YSS912C-F
L301 ~ L303	KLQ100J405T	COIL , PEAKING (RADIAL)	10UH J 4*5
Q301	KVTKSC2316YT	T.R	KSC2316Y

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R369 ~ R372	KRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R373 ~ R376	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R377 ~ R382	KRD20TJ4R7T	RES , CARBON	4.7 OHM 1/5W J
R383 , R384	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R385 ~ R387	KRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R388	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R389	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R390	KRD20TJ4R7T	RES , CARBON	4.7 OHM 1/5W J
R391	KRD20TJ183T	RES , CARBON	18K OHM 1/5W J
R392 ~ R394	KRD20TJ4R7T	RES , CARBON	4.7 OHM 1/5W J
R395	KRD20TJ330T	RES , CARBON	33 OHM 1/5W J
R396	KRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R397	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R398	KRD20TJ4R7T	RES , CARBON	4.7 OHM 1/5W J
R399	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R400	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
BN31	KJP05GB99ZM	CONNECTOR	MOLEX 35237-0510
BN47	KJP12GB99ZM	CONNECTOR	MOLEX 35237-1210
BN48	KJP09GB99ZM	CONNECTOR	MOLEX 35237-0910
IC35	BVVIS61C256A15J	I.C , 256K SRAM	IS61C256AH-15J
JK31 , JK32	BJSTORX178B	MODULE , OPTICAL (RX)	TORX178B
JK33	KJJ4M035Z	JACK , VIDEO	JK010054HG
JK34	BJS9L001Z	MODULE , OPTICAL (TX)	TOTX178B
JK35	KJJ4N050Z	JACK , BOARD	IJBB2-NG
L304 , L305	KLZ9H001Z	BEAD , CORE	
X301	XOX12288E320C	CRYSTAL	12.288MHz HC-49/S
<b>PCB2 KUP11398-2</b>		<b>PCB , SURROUND-2</b>	
C151 ~ C154	KCEA1CKS100T	CAP , ELECT	10UH 16V
C155 , C156	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C157 ~ C160	KCEA1CKS100T	CAP , ELECT	10UF 16V
C161 , C162	KCBS1H270JT	CAP , CERAMIC	27PF 50V J
C163 , C164	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C165 ~ C168	KCEA1CKS100T	CAP , ELECT	10UF 16V
C169 , C170	KCBS1H270JT	CAP , CERAMIC	27PF 50V J
C171 , C172	KCBS1H223ZFT	CAP , CERAMIC	"0,022UF 50V Z"
C173 ~ C178	KCEA1CKS100T	CAP , ELECT	100UF 25V
C179 , C180	KCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V Z
C181 , C182	KCEA1E100T	CAP , ELECT	100UF 25V
C183 ~ C185	KCBS1H181KBT	CAP , CERAMIC	180PF 50VK
C327	KCQI1H222JZT	CAP , MYLAR	2200PF 50V J
C328	KCQI1H272JZT	CAP , MYLAR	2700PF 50V J
C329	KCKT1H101KB	CAP , CERAMIC	100PF 50V K
C330	KCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C331	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
C322	KCCT1H680JC	CAP , CERAMIC	68PF 50V J
C333 , C334	KCEA1CKS100T	CAP , ELECT	10UF 16V
C335 , C336	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C337 , C338	KCEA1EH470T	CAP , ELECT	47UF 25V
C339 , C340	KCQI1H222JZT	CAP , MYLAR	2200PF 50V J
C341 , C342	KCQI1H102JZT	CAP , MYLAR	1000PF 50V J
C343 , C344	KCKT1H151KB	CAP , CERAMIC	150PF 50V K
C345 , C346	KCCT1H680JC	CAP , CERAMIC	68PF 50V J
C347 , C348	KCEA1CKS100T	CAP , ELECT	10UF 16V
C349 , C350	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V J

LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
C351 ~ C353	KCBS1H181KBT	CAP , CERAMIC	180PF 50V K
C355 , C356	KCEA1CKS100T	CAP , ELECT	10UF 16V
C357 , C358	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C359	KCKT1H471KB	CAP , CERAMIC	470PF 50V K
C360	KCEA1CKS100T	CAP , ELECT	10UF 16V
C361 , C362	KCKT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
IC13	BVIOPA2134UA	I.C , OP AMP	OPA2134UA
IC14 , IC15	BVINJM2068MDTE1	I.C , OP AMP	MJM2068MD-TE1
IC16	BVITC9482F	I.C , ELECTRONIC VOLUME	TC9482F
IC36	BVITC9164AF	I.C , S/W	TC9164F
IC37 ~ IC42	BVINJM2068MDTE1	I.C , OP AMP	MJM2068MD-TE1
Q302	KVTKTC2874BT	T.R , MUTE	KTC2874B
R151 , R152	KRS20TJ563T	RES , CARBON	56K OHM 1/5W J
R153 , R154	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R155 , R156	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R157 , R158	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R159 , R160	KRD20TJ563T	RES , CARBON	56K OHM 1/5W J
R161 , R162	KRD20TJ392T	RES , CARBON	3.9K OHM 1/5W J
R163	KRD20TJ303T	RES , CARBON	30K OHM 1/5W J
R164	KRD20TJ393T	RES , CARBON	39K OHM 1/5W J
R165 , R166	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R167	KRD20TJ102T	RES , CARBON	1K OHM 1/5W
R169 , R170	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R171 , R172	KRD20TJ563T	RES , CARBON	56K OHM 1/5W J
R173 , R174	KRD20TJ382T	RES , CARBON	3.9K OHM 1/5W J
R175 , R176	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R177 , R178	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R179 , R180	KRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R181 , R182	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R183 ~ R188	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R189 , R190	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R191 ~ R193	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R194	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R301 , R302	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R303 , R304	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R305 , R306	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R307 , R308	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R309 , R310	KRD20TJ822T	RES , CARBON	8.2K OHM 1/5W J
R311 , R312	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R313 , R314	KRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R315 , R316	KRD20TJ182T	RES , CARBON	1.8K OHM 1/5W J
R317 , R318	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R319 , R320	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R321 ~ R326	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R327 , R328	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R329 ~ R332	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R334 , R334	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R335	KRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R336	KRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R337 , R338	KRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R339	KRD20TJ113T	RES , CARBON	11K OHM 1/5W J
R340	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R341 , R342	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R343 ~ R346	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R347 , R348	KRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J



LOAD NO.	PART NO.	DESCRIPTION	SPECIFICATION
R349 , R350	KRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R351 , R352	KRD20TJ183T	RES , CARBON	18K OHM 1/5W J
R353 , R354	KRD20TJ113T	RES , CARBON	11K OHM 1/5W J
R355 , R356	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R357 , R358	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R359 ~ R361	KRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R362 , R363	KRD20TJ101T	RES , CARBON	100K OHM 1/5W J
R364 , R365	KRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R366	KRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R367 , R368	KRD20TJ101T	RES , CARBON	100 OHM 1/5W J
BN41	KJP09GB99ZM	CONNECTOR	MOLEX35237-0910
BN42	KJP13GB99ZM	CONNECTOR	MOLEX35237-1310
BN46	KJP07GB99ZM	CONNECTOR , HOUSING	MOLEX35237-0710
CN47	KJP12GA98ZM	WAFER	MOLEX35237-1210
CN48	KJP09GA98ZM	WAFER	MOLEX35237-0910
	<b>INSTRUCTION MANUAL ASS'Y</b>		
	BARTL75	REMOCON , TRANSMITTER ASS'Y	
BAT1	KABAAAM1.5VA	BATTERY ASS'Y	
	KQX1A674Y	MANUAL , INSTRUCTION	
	KSA267	ANT , FM T	
	KSA3A013Z	ANT , AM LOOP	
	KLRICM04	ADAPTOR, 75-300(PAL) C VERSION	
	KLR1T201	ADAPTOR, 300-75(NTSC) AH VERSION	